REPORT RESUMES

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PILOT VOCATIONAL TEACHER TRAINING INSTITUTE IN DENTAL ASSISTING, SUMMER 1966.

BY- BARTON, ROGER E. AND OTHERS

UNIV. OF NORTH CAROLINA, SCH. OF DENTISTRY, CHAPEL HILL

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A DENTAL ASSISTANT TEACHER TRAINING PROGRAM OF APPROXIMATELY 4 WEEKS IN LENGTH WAS HELD FOR GRADUATES OF ACCREDITED DENTAL ASSISTING PROGRAMS HAVING 5 OR MORE YEARS OF DENTAL ASSISTANT TEACHING EXPERIENCE. THE 72 PARTICIPANTS WERE PRE- AND POST-TESTED IN KNOWLEDGE AND SKILLS OF DENTAL ASSISTING. THE PRESENTATION INCLUDED LECTURES, DEMONSTRATIONS, TV DEMONSTRATIONS, CLINIC AND LABORATORY OBSERVATION, STUDENT CLINICAL ACHIEVEMENT EVALUATION, PRACTICE TEACHING PARTICIPATION, AND DISCUSSION SESSIONS. THE RESULTS OF THE PROGRAM EVALUATION INDICATED THAT THE PARTICIPANTS GAINED CONSIDERABLE INSIGHT AND INFORMATION. (RS)

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Final Report

Pilot Vocational Teacher Training Institute in Dental Assisting, Summer 1966

School of Dentistry
University of North Carolina
Chapel Hill, North Carolina

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Supported by a Grant from the
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Report prepared by
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INTRODUCTION

SUMMARY BRIEF

INSTITUTE PARTICIPANTS

INTRODUCTION

There are many factors which relate to the complex total dental manpower situation. One of these factors is the critical need for qualified teachers in dental assisting education and training programs. Through the efforts of many persons and agencies, the Institute for Dental Assistant Teachers was conducted at the University of North Carolina School of Dentistry in an effort to supplement the qualifications of employed teachers. Likewise, through the processes of organizing and presenting a program of this nature, some of the more urgent problems can be identified.

This report will not attempt to pursue all the manifestations of the manpower situation relating to auxiliary personnel. However, certain aspects of the total problem were the direct concern of the program. These items will be discussed and suggestions made in the hope that the information provided will serve as a background for a concerted effort by those interested persons, institutions or agencies to formalize procedures to cope with the existing situation.

SUMMARY BRIEF

Grant Number OEG-2-6-062653-0736
Pilot Vocational Teacher Training Institute in Dental Assisting,
Summer, 1966

School of Dentistry
University of North Carolina
Chapel Hill, N. C.
July 11, 1966 - August 5, 1966

The objective of this Institute was to present a short, concentrated program of instruction on the art and science of dental assistant teaching as well as refresher material in chairside assisting in the many phases of dentistry to those persons qualified and who had been associated with dental assistant teaching for five years or more.

The purpose of this Institute should not be considered a substitute for teacher training institutes with programs of greater scope and dimension, but as an immediate plan which provides assistance, guidance, and counsel for the teacher with a limited educational and experiential background.

Due to the rapid expansion of dental assistant education programs and the critical shortage of teachers, institutions have had to employ non-degree dental assistant teachers with limited qualifications. This program was, therefore, designed to help resolve in a limited way this dental assistant instructional deficiency.

The initial incentive for dental assistant teacher summer institutes was created by the American Dental Association, through its Council on Dental Education, in cooperation with an Inter-Agency Joint Committee representing: the American Dental Association, American Association of Dental Schools, American Association of Junior Colleges, U.S. Public Health Service's Division of Dental Health, American Dental Assistant Association and American Dental Hygienists' Association.

One program was conducted in the summer of 1965 for a period of four weeks. This program was made possible through a grant from the W. K. Kellogg Foundation and was conducted at the School of Dentistry, University of North Carolina.

As a result of the response and conclusions of this original program, plans were made to conduct two programs during the summer of 1966. The decision was also made to have the individual institutions (University of Detroit and University of North Carolina) administer the programs independent of the Council on Dental Education of the American Dental Association.

The two schools mentioned previously made application to and received support from the Department of Health, Education, and Welfare - Office of Education. Both programs were organized for approximately four weeks duration. The participants were to be selected primarily in accord with the length of time spent as dental assistant teachers. The University of Detroit was to select those who had less than five years teaching experience and the University of North Carolina was to select those teachers having five or more years of teaching experience.

With this selection criteria established, the faculty of the School of Dentistry, University of North Carolina prepared a curriculum, based on the experiences of the 1965 dental assistant teacher workshop, concentrating on essentially two areas - 1) the Art and Science of Teaching and 2) Chairside Assisting.

The participants were housed in a new dormitory located three blocks from the School of Dentistry. Bus service to and from the dormitory was provided free of charge.

The facilities of the School of Dentistry were used throughout the program and included lecture halls, laboratories, clinic areas, and TV studio. All the necessary supplies and materials were provided the participants for every phase of the program.

The participants took a pre-program test in the knowledge and skills of dental assisting. They were also given a pre-program opinion survey to complete relating to the dental assistant image and teaching experience background. Similar tests and surveys were given near the end of the program. The difference in the pre- and post- tests are discussed in other sections of this report.

The acutal presentation of the program included lectures, demonstrations, TV demonstrations, clinic and laboratory observation, dental assistant student clinical achievement evaluation, practice teaching participation, and discussion sessions.

Two unanticipated problems created some disturbing situations with the scheduled sequence of the curriculum, namely 1) participants having a wide range of dental assisting experience and teaching background had to be accepted since only thirteen qualified with five or more years of teaching experience, and 2) air transportation difficulties prevented scheduled arrival of all participants at the beginning of the program. However, the program was conducted as scheduled, with a few minor changes, in the original grant request.

In the way of general results, it should be stated at the outset that the general objective of the Institute was carried out in a most effective manner. Both the class members and the faculty felt that all of the individuals gained considerable insight and information in the method and theory of teaching as well as the techniques and philosophy of chairside assisting. The wide range of background and experience presented by the members of the class made it clear that the benefits gained would vary considerably from individual to individual. In spite of this fact, the class was uniformily enthusiastic. Several suggestions were made as to how the institute might be improved on future occasions but these items were of specific nature and it seemed agreed that the general format and approach has been quite appropriate. Naturally, a completely positive statement of this nature cannot be made until the trainees return to their teaching duties and there draw upon or reject the experiences gained in the Institute.

Enthusiasm for the program seemed to build a little more slowly than in the previous year, but the group appeared to be more enthusiastic and pleased at the end of the session than was the case with those who participated in the previous year's workshop. One positive factor in this regard was certainly the more convenient and attractive housing arrangement on the University Campus provided the students in this year's Institute.

The Faculty, having had one year's experience, was much better prepared and seemed to feel that the course was more substantial and effective. There seems to be some question as to the advisability of expanding the Summer Institute Program along the lines of the present format. The number of dental assistant teachers who are in a position to take advantage of this type program is rather limited and the "market" for this approach may be saturated in the near future. It is suggested that the format be carefully studied and an effort made to determine if certain changes should be made with regard to the emphasis of subsequent Institutes at this or any other institution. Certainly the entire Institute concept is designed only as a "stopgap" procedure to serve until extended formal training programs are available in sufficient supply. Perhaps the Summer Institute should then be reoriented toward a continuing education type of program to serve the trained dental assistant teachers in their effort to keep pace with their profession. The precise timing and nature of such changes in the program will require study by the Public Health Service on the basis of data collected from the two Institutes conducted this summer and the workshop conducted by the University of North Carolina in 1965. Some estimate of demand for this current type program should be made before the planned expansion of the Institute program is carried out.

Faculty, Guest Lecturer and Observer

INSTITUTE PARTICIPANTS

FACULTY, SCHOOL OF DENTISTRY, UNIVERSITY OF NORTH CAROLINA

The following faculty members participated as instructors in the dental assistant teacher institute in the summer of 1966:

James W. Bawden, D.D.S., M.S., Ph.D., Dean, School of Dentistry

Benjamin R. Baker, B.A., M.Ed., D.D.S., M.Sc., Assistant Professor, Department of Pedodontics

Bennie D. Barker, B.S., D.D.S., M.Ed., Associate Professor, Department of Preventive Dentistry and Dental Science

Roger E. Barton, D.D.S., Professor, Department of Operative Dentistry

Alberta M. Beat, R.D.H., B.S., Assistant Professor, Assistant Director of Dental Hygiene

Clifton E. Crandell, B.S., D.D.S., M.S., M.Ed., Associate Professor, Department of Oral Diagnosis and Treatment Planning

William Davis, D.D.S., Resident, Department of Orthodontics

M. Lamar Harrison, B.S., D.D.S., Associate Professor, Department of Operative Dentistry

Kermit F. Knudtzon, D.D.S., Professor, Department of Preventive Dentistry and Dental Science

Robert J. Shankle, D.D.S., Professor, Department of Endodontics

William D. Strickland, B.S., D.D.S., Associate Professor, Department of Operative Dentistry

Matthew T. Wood, A.B., D.D.S., Associate Professor, Department of Prosthodontics

The following persons on the School of Dentistry staff contributed considerable time and effort to the program:

Mrs. Polly Abernathy, Dental Assistant

Mr. Rupert Bynum, Director, Closed Circuit Television

Mr. William Brickhous, Photographer

GUEST PARTICIPANTS

Mr. B. R. Chamberlain, Jr., Occupational Analyst, Employment Security Commission of North Carolina, Raleigh, North Carolina

Dr. Richard H. Hagemeyer, President, Central Piedmont Community College, Charlotte, North Carolina

Miss Mabel LaBarr, Occupational Analyst, Employment Security Commission, Raleigh, North Carolina

Mrs. Mildred Lynch, Instructor, Dental Assisting Program, Alamance Technical Institute, Burlington, North Carolina

Miss Edna Zedaker, President, American Dental Assistants Association, Charlotte, North Carolina

Mr. Ben F. Miller, III, Assistant Secretary, Council on Dental Education, American Dental Association, Chicago, Illinois agreed to participate but due to transportation difficulties (airline strike) was unable to attend. Mr. Miller's prepared material was presented by Dr. Bawden and is included in this report.

Miss Sarah Bizzell of Fayetteville, North Carolina, a member of the Education Committee of the American Dental Assistants Association was a guest observer during the final day of the Institute.

Participants of 1966 Summer Teacher Training Institute

TEACHER TRAINEE PARTICIPANTS

NAME AND ADDRESS	SCHOOL AFFILIATION
Berkowitz, Elaine Harriet (Miss) 1324 Wightman Street Pittsburgh, Pennsylvania 15217	University of Pittsburgh School of Dentistry Pittsburgh, Penn. 15213
Bridgeford, Jeraldine Margaret (Miss) 11702 Abington Detroit, Michigan 48227	Michigan Lutheran College 18734 Woodward Detroit, Michigan 48203
Brown, Patricia F. (Mrs.) 612 Osceola Big Rapids, Michigan 49307	Ferris State College Big Rapids Michigan
Cheeseman, Cheryl Ann (Miss) 2125 Ridge Road McKeesport, Pennsylvania 15135	University of Pittsburgh School of Dentistry Pittsburgh, Penn. 15213
Erb, Carol A. (Miss) 1773 E. Dunedin Road Columbus, Ohio 43224	Grove City Technical Training Center Grove City, Ohio

NAME AND ADDRESS	SCHOOL AFFILIATION
Glass, Doris L. (Mrs.) 415 Wells Avenue N. W. Canton, Ohio 44703	Timken Vocational High School 521 W. Tuscarawas St. Canton, Ohio
Hanson, Ellen Henrietta (Miss) 1072 6th Street Monterey, California 93940	Monterey Peninsula College 980 Fremont Avenue Monterey, California
Hartman, Lucy M. (Mrs.) 5304 N. Moore Avenue Portland, Oregon 97217	University of Oregon School of Dentistry Portland, Oregon
Irwin, Helen (Mrs.) 10 Harding Street Johnstown, Pennsylvania 15905	Penn. Rehabilitation Center 727 Goucher Street Johnstown, Penn.
Jarowey, Victoria B. (Mrs.) 102 Corbin Road Hamden, Conn.	Eli Whitney Regional Tech. 71 Jones Road Hamden, Conn.
MacInnis, Dorothy Jean (Mrs.) 4315 Teton Boise, Idaho 83704	Boise College College Blvd. Boise, Idaho
Moore, Marie (Mrs.) 242 Church Street North Adams, Mass.	McCann Vocational Technical School North Adams, Mass.
Munsell, Barbara A. (Mrs.) 35 Brookfield Street Ludlow, Mass. 01056	Springfield Trade High School 1300 State Street Springfield, Mass.
Noonan, Marie Catherine (Miss) 94 Woodland Street Worcester, Mass. 01610	Fanning Trade High School 24 Chatham Street Worcester, Mass.
Pillot, Dorothy M. (Miss) 1105 Ironwood Drive Mount Prospect, Illinois 60056	University of Illinois College of Dentistry 808 South Wood Street Chicago, Illinois
Ryan, Louise C. (Mrs.) 118 Ives Street Big Rapids, Michigan 49307	Ferris State College Big Rapids Michigan

NAME AND ADDRESS	SCHOOL AFFILIATION
Scroggin, Elizabeth Barbara (Mrs.) N - 2312 - Washington Street Spokane, Washington 99205	Spokane Community College E. 3403 Mission Ave. Spokane, Washington
Serafin, Eugenia (Mrs.) 1036 East Griswold Road Phoenix, Arizona 85020	Phoenix Union Vocational School 712 N. 7th St. Phoenix, Arizona
Stone, Joanne Lucille (Mrs.) 1560 N. W. 195th Street Seattle, Washington 98177	Edison Technical School Seattle Washington
Taras, Helen Lee M. (Miss) 47 Waterbury Lane Westbury, New York 11590	Wyandanch Memorial High School 33rd St. and Brooklyn Ave. Wyandanch, N. Y.
Venture, Marie V. (Mrs.) 1325 South Manheim Road Westchester, Illinois 60156	University of Illinois School of Dentistry 808 S. Wood Street Chicago, Illinois
Ziegler, Violet Elizabeth (Miss) 1023 East 7th Street National City, California 92050	San Diego Mesa College Artillery Drive San Diego, Illinois

The following persons enrolled but were unable to attend due to transportation difficulties:

King, Eleanor A. E. (Miss)
53 Garder Street
Boston, Mass. 02114

Ridinger, Suzie A. (Miss)
1806 E. 9th Street
Duluth, Minnesota

Schulz, Carol M. (Miss)
510 S. 6th St.
Brainerd, Minnesota

The following person attended the first week of the program as an observer at no cost to the grant:

Dr. Gene W. Herschfeld
7320 Glenroie Ave.
Norfolk, Virginia

PROGRAM PREPARATION

INSTITUTE SCHEDULE

PROGRAM PREPARATION

The original grant request was submitted by Dr. Kenneth E. Wessels on January 20, 1966, in behalf of the Inter-Agency Committee representing: the American Dental Association, American Association of Dental Schools, American Association of Junior Colleges, USPHS Division of Dental Health, American Dental Assistants Association, and American Dental Hygienists' Association.

Revised material was submitted by the School of Dentistry, University of North Carolina on March 15, 1966. The grant request was subsequently approved for the period of May 1, 1966, through November 30, 1966, in the sum of $21,098.00.

Purpose and Description

The purpose of the Institute in 1966 was to conduct a dental assistant teacher training program of approximately four weeks in length for graduates of accredited dental assisting programs having five or more years of dental assistant teaching experience. The program was designed to improve the skills and knowledge of trainees in both dental assisting and teaching.

The trainees were given carefully planned courses of instruction in the technical aspects of dental assisting as related especially to chairside duties and activities. The teacher training segment included emphasis on the techniques, methods, and skills used in effective classroom and laboratory teaching.

The Institute at the University of North Carolina was held from July 11, 1966 through August 5, 1966, with all classes being held in the School of Dentistry.

Brochure and Application Form

Upon formal notification of the grant request approval, a publicity brochure and application form were prepared. Through the efforts of Drs. Kermit Knudtzon and Roger Barton, a brochure including information, pictures, and an application blank was composed and 750 copies in two colors printed.

Mailing lists were obtained from various sources, and copies of the brochure were sent to the Deans of all Dental Schools, Directors of all approved Dental Assisting Education and Training Programs, Directors of

Vocational Education in each State Department of Education, members of the Education Committee of the American Dental Assistants Association, various officers of the American Dental Association and American Dental Assistants Association, members of the Inter-Agency Joint Committee, members of the United States Public Health Service staff concerned with dental auxiliary education, and all persons who applied and were not accepted for the workshop conducted at the University of North Carolina in the summer of 1965.

Brochures and additional information were also forwarded to the editor of the Journal of the American Dental Assistants Association and the Executive Secretary of the Association.

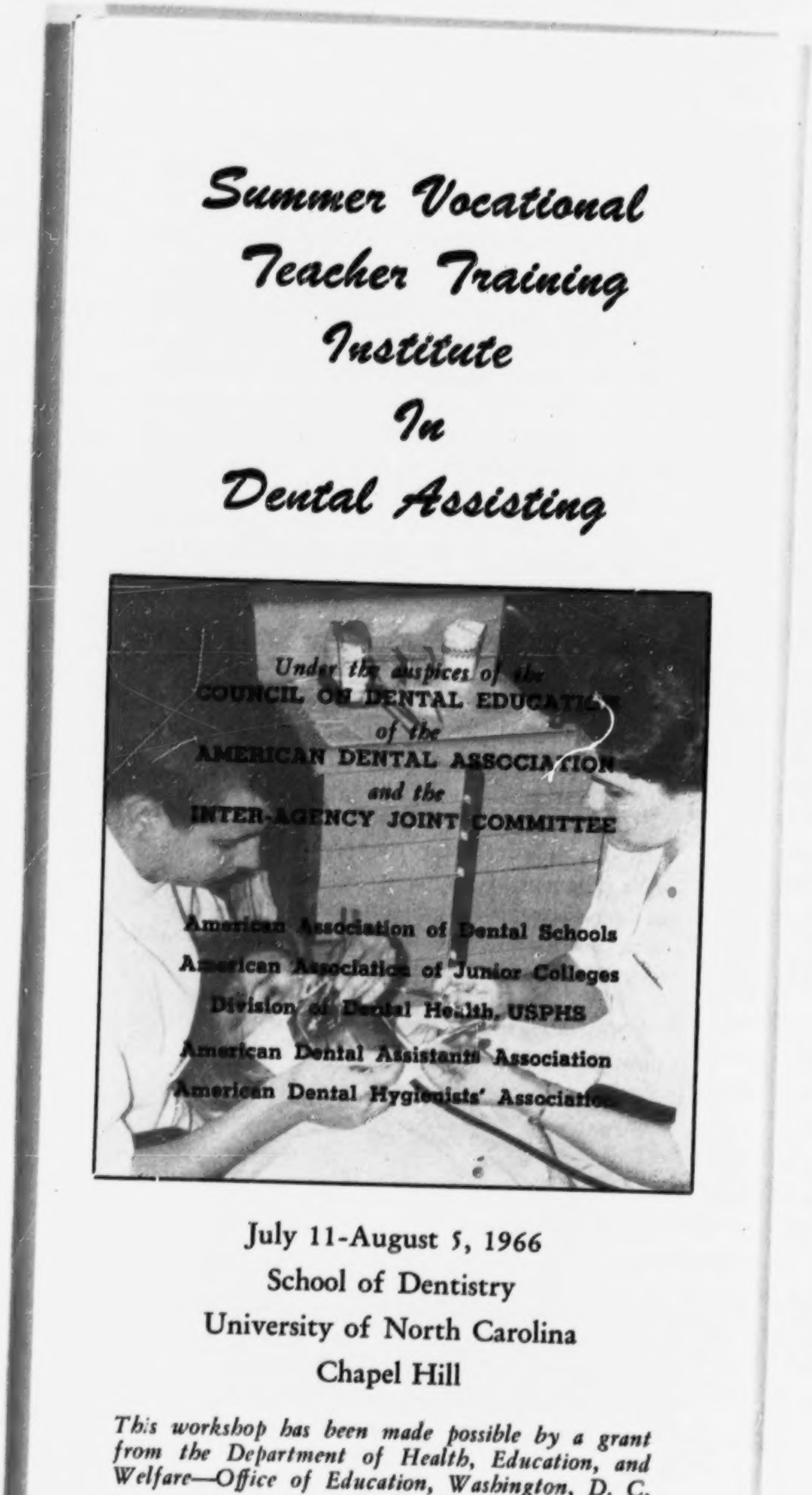
A sample of the brochure is attached to this report.

Applications

As stated in the purpose of the program at the University of North Carolina, the Institute was to be held for those persons who were graduates of an accredited dental assisting program and who had five or more years of dental assistant teaching experience. It soon became apparent after the brochures were mailed that the response by persons with the necessary qualifications would be too small to fill a class of twenty-five.

As time approached to begin the program, only thirteen qualified applications were received. When the project director at the University of Detroit was contacted it was learned that program (under five years teaching experience) was oversubscribed, therefore, it was decided to open up the program at the University of North Carolina to those having less than five years teaching experience. At the same time it was decided not to accept any person that had enrolled in the dental assistant teacher training workshop of 1965. As a result of these changes in admissions policy, fifteen of those persons attending the program at the University of North Carolina had less than five years of teaching experience with two of this number having no teaching experience. This experience indicates that different criteria for selection should be used if further institutes are to be held.

All of the applications transferred from the University of Detroit could not be accepted in the program. However, all were eventually considered because several persons accepted for the University of North Carolina program were unable to attend because they had arranged their summer schedule to coincide with the dates of the program at Detroit. Thus several persons qualified to attend an institute and who were interested in attending were unable to do so because of schedule conflicts. This fact points up the consideration that the institutes should be held at several schools at the same time. This, however, may be an impossibility because of exist-



Summer Vocational Teacher Training Institute In Dental Assisting

Under the auspices of the
COUNCIL ON DENTAL EDUCATION
of the
AMERICAN DENTAL ASSOCIATION
and the
INTER-AGENCY JOINT COMMITTEE

American Association of Dental Schools
American Association of Junior Colleges
Division of Dental Health, USPHS
American Dental Assistants Association
American Dental Hygienists' Association

July 11-August 5, 1966
School of Dentistry
University of North Carolina
Chapel Hill

This workshop has been made possible by a grant from the Department of Health, Education, and Welfare—Office of Education, Washington, D. C.

Objective and Purpose . . . .

The objective of this institute is to present a short, intensive course of instruction in the art and science of dental assistant teaching as well as refresher material in chairside assisting in the many phases of dentistry to those persons qualified and who have been associated with dental assistant teaching for five years or more. (An institute for those persons with less than five years teaching experience will be conducted at the School of Dentistry, University of Detroit.)

Due to the rapid expansion of programs, as well as, the critical shortage of teachers and teacher training institutes in the special field of dental assisting, colleges frequently have found it necessary to employ individuals with limited qualifications.

The *purpose* of this institute is not to be considered a substitute for teacher training institutes with programs of greater scope and dimension, but an immediate plan which provides assistance, guidance, and counsel for the teacher with a limited educational and experiential background.

No college credit can be given for this institute through the University of North Carolina.

Faculty . . . .

The faculty for the institute will be composed of: (a) UNC staff, who teach regularly in the dental assistants' resident and extension programs; (b) an administrator from a community college; and (c) guest lecturers from the various components of the Inter-Agency Joint Committee.

Program . . . .

The entire four weeks will be oriented heavily toward teaching methods and student evaluation, with appreciable opportunity to see and evaluate first-hand the facilities (laboratory and clinics), methods and procedures employed in the dental assistant trainee program in progress at the school.

The art and science of teaching portion of the institute will consist of approximately 58 hours including the following material:

- Philosophies of education
- Development of education objectives
- Curriculum design and course construction
- Theories of learning
- Student evaluation
- Teaching methods and practice
- Preparation and use of teaching aids

The clinical chairside assisting phase of the program will consist of approximately 46 hours and will include instruction in chairside functions of the dental assistant in all disciplines of general dental practice as considered in the knowledge and skills assigned to the dental assistant by the Council on Dental Education of the ADA.

OLD WELL

Institute Attendance: Eligibility . . . .

Eligibility for participation in the Institute is based on several criteria:

1) Successful completion of a dental assistant education and training program accredited by the Council on Dental Education of the ADA or an accreditation-eligible program.

2) Employment as a dental assistant teacher for five years or more and presently associated with a training program meeting the standards published by the Council on Dental Education of the ADA. (The five or more years teaching experience is required for the University of North Carolina Program.) ***

3) Conform to (1) and (2) or be a graduate dentist or dental hygienist whose primary career objective is now in teaching in dental assisting programs.

In addition to the above requirements, those applicants who have been certified by the Certifying Board of the American Dental Assistants Association will be given first consideration.

READ *** *PLEASE NOTE* *** READ

A second Dental Assistant Teacher Training Institute will be held during the summer of 1966 at the School of Dentistry, University of Detroit. Persons are eligible for this program if their teaching experience is less than five years and/or they have a signed commitment to teach in the fall of 1966.

If eligible for this program, please contact the Teacher Training Institute Director, University of Detroit School of Dentistry, 2985 East Jefferson Avenue, Detroit, Michigan, 48207.

Tear off
and
Mail to:

Director—Summer Institute, Teacher Training for Dental Assisting
P. O. Box 750, University of North Carolina, School of Dentistry
Chapel Hill, North Carolina 27514

I herewith make application for admission to the Institute, July 11-August 5, 1966.

NAME ____________ STREET ADDRESS ____________

CITY ____________ STATE ____________ ZIP CODE ____________

Years of *Teaching* Experience in Dental Assistant Programs ____________ Age ____________

Present *Teaching* Position ____________ (Title)

Name of School ____________ Address ____________

If teaching experience has occurred at more than one School, please list in chronological order on this application.

Other Comments: ____________ Year of Certification: ____________

Notification of acceptance or non-acceptance as a trainee will be made at an early date. Other information also will be forwarded to those accepted.

Director—Summer Institute: Teacher Training for Dental Assistant Programs
University of North Carolina, School of Dentistry
P. O. Box 750
Chapel Hill, N. C. 27514

Non-Profit Organization
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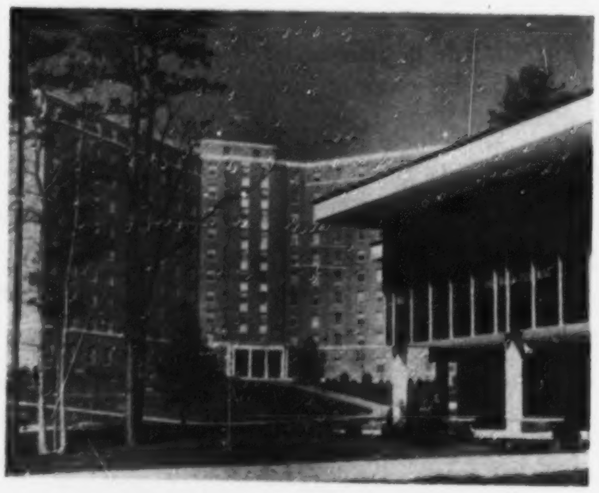
Chapel Hill, N. C.



MORRISON DORMITORY AND CAFETERIA

Housing . . . .

Rooms for women, which are attractive as well as comfortable, and which are only a short walking distance from the dental school (two to each room), have been reserved for the trainees in Morrison Dormitory.

Single rooms are available at extra cost (to be paid by the trainee) for the four weeks period. However, only a very limited number of single rooms are available.

SCHOOL OF DENTISTRY

Facilities . . . .

The facilities of the School of Dentistry will be used throughout the program and include lecture halls, laboratories, and clinic areas. The necessary dental instruments and materials will be provided by the School of Dentistry.

The dormitory and cafeteria facilities are adjoining.

Expenses for Trainee . . . .

The grant provides funds which cover the costs of registration (including infirmary fees and physical education privileges), dormitory fees, laundry fee, books, and meal allowance.

The cost of transportation to and from Chapel Hill will be borne by the trainee.

Other Activities at UNC . . . .

Trainees will be accorded the privileges of University students, i.e., swimming pool, golf course (small fee), concerts, and lectures.

Certificate . . . .

Each trainee will receive a Certificate indicating attendance at the Institute.

Number of Trainees . . . .

The number of trainees to be selected will be limited to 25, and admission will be granted in the order of receipt of the applications from qualified persons.

ing school programs and schedules.

A special request was granted to permit Dr. Herschfeld of Norfolk, Virginia, to attend the institute as an observer. Dr. Herschfeld attended the program at his own expense and any materials provided the participants by the institute were purchased by him. Dr. Herschfeld had been recently appointed Director of Dental Assisting and Dental Hygiene Programs at Old Dominion College in Norfolk, Virginia, and is to begin a dental assistant program in the fall of 1967. His primary purpose for requesting attendance at the Instutute was to secure material to assist in structuring a curriculum and to obtain information pertaining to teaching methods that could be conveyed to his instructors. He attended the first week of the program.

When applicants were accepted to the program and, in turn, sent notification of intent to attend, they were forwarded an informational package containing the following:

1) Campus map with special markings indicating the Dental School, Dormitory, and nearest cafeteria.
2) Copy of tentative daily schedule.
3) Listing of summer campus activities.
4) Explanation of dormitory facilities and rules.
5) A letter from the institute director explaining local transportation, climatic conditions, expected arrival and departure times and items of personal interest.

A strike affecting several airlines began immediately before the program was to start. This resulted in the late arrival (up to four days) of five of the participants. It also prevented three accepted applicants from attending any portion of the program. Therefore, although the Institute was tentatively filled with twenty-five teachers, only twenty-one attended with five of these for less than the scheduled four weeks. These circumstances actually created more confusion than actual problems in the program. The one problem, as far as the Institute was concerned, was in presenting the pre-test series to late arrivals. Those participants arriving late were also faced with the problem of securing from the other trainees what information they missed in order to bring themselves up to date in the sequence of activities.

Accepted Trainees

It is noted from the list of teacher trainee participants included in this report that those attending came from twelve different states from coast to coast. The years of dental assisting experience ranged from one to thirty-four. Thirteen trainees had less than ten years experience as a dental assistant, five had between ten and twenty years experience, and four had more than twenty years experience.

The teaching experience time for those attending ranged from none to nine years. Two had no dental assisting teaching experience, eleven had taught from one through three years, five taught from four through six years, and four had from seven through nine years of teaching experience.

It is interesting to note that six participants held certificates in dental hygiene, two held Master's degrees, two held Bachelor's of Science degrees, two held Associate of Arts degrees, and fourteen had no Baccalaucate degree. It should be noted, however, that of those with no degree, eleven had taken courses for college credit. The number of credit hours ranged from three to ninety. This latter statement indicates that those interested in teaching have attempted to acquire additional education while on the job. The majority of these credit hours were in the field of education. This being the case, some of the topics covered under the art and science of teaching portion of the program were able to provide very little new material for some of the trainees.

Seventeen of those attending the Institute had been certified by the ADAA and were currently renewed. The five trainees not indicating ADAA certification all held a certificate in dental hygiene.

The ages of the participants ranged from twenty-one to sixty. Six participants were in their twenties, one was in her thirties, nine were in their forties, and six were between fifty and sixty. This range of ages presented no problem within the class. In fact, the advantages of maturity and experience were beneficial to the class as a whole.

Curriculum Plan

Four members of the dental school faculty who had taken part in the 1965 dental assistant teacher workshop were designed to prepare a curriculum for the 1966 Institute. These faculty members were Drs. Ben Barker, Benjamin Baker, Kermit Knudtzon, and Roger Barton. Considering the experiences gained in the previous workshop and the recommendations of the 1965 final report, the new curriculum plan was to include two basic areas; 1) the art and science of teaching, and 2) chairside assisting techniques. These two segments were to share approximately equal time. Additional time was provided for pre- and post-testing, guest presentations, and seminars.

The art and science of teaching was scheduled for approximately 60 hours and consisted of the following topics:

1) Philosophies of education
2) Development of educational objectives
3) Curriculum design and course instruction
4) Theories of learning

5) Student evaluation
6) Teaching methods
7) Preparation and use of teaching aids
8) Communications--public speaking
9) Student counseling
10) Student selection

These topics were assigned to various faculty members and the topic content then became their responsibility. The persons associated with this material prepared outlines so that the material could be coordinated for scheduling purposes.

The chairside assisting techniques segment of the program was scheduled for approximately 50 hours and consisted of the following topics:

1) Team concept
2) Office orientation and maintenance
3) Oral diagnosis and treatment planning
4) Anesthesia
5) Operative dentistry
6) Crown and bridge prosthodontics
7) Endodontics
8) Prosthodontics
9) Pedodontics
10) Oral surgery
11) Periodontics
12) Orthodontics
13) Instrument care and sterilization

In addition to the two main subject areas, approximately 30 hours were scheduled for other activities relating to the purpose of the institute.

Even though the institute was organized for those persons with five or more years of dental teaching experience, the problem of arranging a curriculum meaningful and interesting to all was a major one. The experiences of the previous year, to some degree, aided in resolving this problem. It was realized, however, that all the subject material would not be new to all participants, but an attempt was made to provide material that would be helpful and even challanging to those present.

Scheduling of the topics was arranged to provide a sequential coverage of both major areas. The schedule also had to be arranged to coincide with the availability of space, to avoid conflicts with other programs being conducted within the School of Dentistry at the same time, to coincide with the schedule of the dental assistant training program, and in conjunction with the faculty summer schedule. This did present some minor problems, especially when the program was to extend over a four week period.

The final schedule published before the beginning of the program was followed with but few alterations. The schedule represented in this report was that which was actually used and does indicate a few changes from that submitted with the quarterly report.

INSTITUTE SCHEDULE

University of North Carolina
Institute: Teacher Training for Dental Assistant Programs
July 11-August 5
1966

First Week: July 11-July 15

Date	Hour	Subject	Faculty
July 11 Monday	9:00-10:00	Registration in lobby of School of Dentistry	Knudtzon
	10:00-11:00	Orientation and Objectives of Institute, Lecture Hall C*	Bawden
	11:00-12:00	Schedules and Books	Barton
	12:00-1:30	Lunch (same time daily)	
	1:30-3:00	Written Comprehensive	Knudtzon
	3:00-5:00	Art and Science of Teaching Questionnaire	Barker
July 12 Tuesday	8:30-12:00	Clinical and Laboratory Comprehensive	Strickland Barton, Wood, Knudtzon
	1:30-4:30	Clinical and Laboratory Comprehensive	Strickland, Barton, Wood, Knudtzon
July 13 Wednesday	8:30-10:30	Identification of Knowledges and Skills	Barton
	10:30-12:00	Office Orientation and Maintenance	Baker
	1:30-4:30	Demonstration of Clinical and Laboratory Comprehensive (Split Class)	Strickland & Wood
July 14 Thursday	8:30-12:00	Developing Educational Objectives-Orientation, etc.	Barker
	1:30-4:30	Demonstration of Clinical and Laboratory Comprehensive (Split Class)	Strickland & Wood

*All classes will meet in the School of Dentistry, Lecture Hall C, unless otherwise noted.

Date	Hour	Subject	Faculty
July 15 Friday	8:30-10:30	Educational Objectives	Barker
	10:30-12:00	Organization and Administration of Educational Programs in Junior and Community Colleges	Hagemeyer (Guest)
	1:30-3:30	Team concept, instrument passing, four-handed dentistry	Strickland
	3:30-4:30	Kinesiology	Baker

Second Week: July 18-July 22

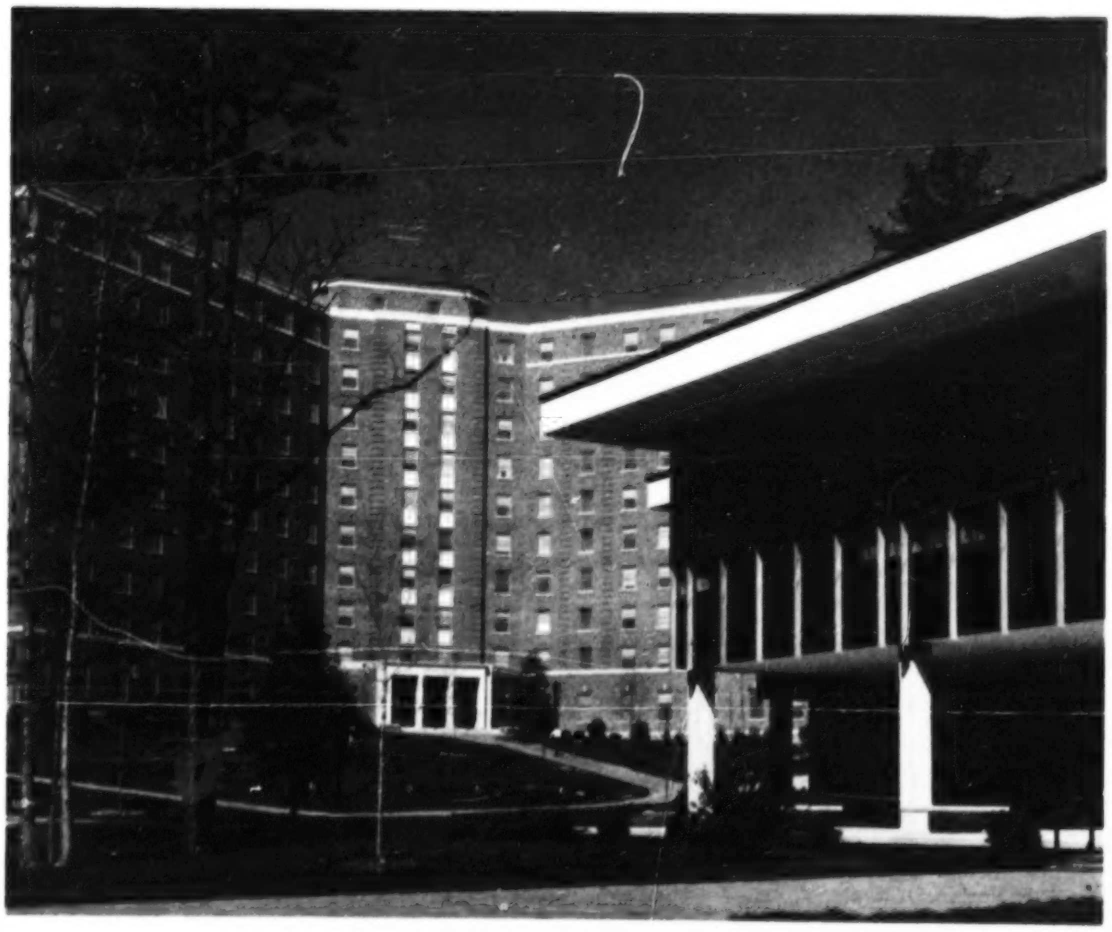
Date	Hour	Subject	Faculty
July 18 Monday	8:30-12:00	Oral Diagnosis, Radiography, Treatment Planning and Anesthesia	Strickland
	1:30-3:30	Social, Psychological, and Educational Principles in Teaching and Learning	Barker
	3:30-4:30	Student Selection	Knudtzon
July 19 Tuesday	8:30-12:00	Employment Security Commission Tests and Evaluation--Room 331 Public Health Building	Chamberlin LaBarr (Guests)
	1:30-4:30	Curriculum Design and Construction	Barker
July 20 Wednesday	8:30-12:00	Theories of Learning	Crandell
	1:30-3:00	Administration of Dental Assistant Education Program	Knudtzon
	3:00-4:30	Dental Assistant Practice Management	Knudtzon
July 21 Thursday	8:30-12:00	Course Design and Construction	Crandell
	1:30-3:30	Operative Assisting	Strickland
	3:30-4:30	Crown and Bridge Assisting	Baker
July 22 Friday	8:30-10:00	Course Evaluation (teacher oriented)	Barker
	10:00-11:00	Clinical Observation	Strickland
	11:00-12:00	Clinical Discussion	Barton
	1:30-3:00	Course Evaluation (teacher oriented--con't)	Barker
	3:00-4:30	Endodontic Assisting	Baker

Third Week: July 25-29

Date	Hour	Subject	Faculty
July 25 Monday	8:30-12:00	Methods: The Lecture (preparation and presentation)	Baker
	1:30-3:00	Student Counseling	Beat
	3:00-4:30	Laboratory Discussion--Observation of Dental Assistant Laboratory	Wood
July 26 Tuesday	8:30-10:00	TV-Endodontics	Shankle
	10:00-12:00	Methods: Nature and Use of Teaching Aids	Crandell
	1:30-3:30	Teaching Aids-Demonstration	Harrison
	3:30-4:30	Periodontics	Baker
July 27 Wednesday	8:30-12:00	Methods: Demonstration	Baker
	1:30-3:30	Communications	Crandell
	3:30-4:30	Oral Surgery Assisting and Instrument Sterilization	Strickland
July 28 Thursday	8:30-9:30	Orthodontics Assisting	Baker
	9:30-11:00	TV-Orthodontics	Davis
	11:00-12:00	Clinical Observation and Discussion	Strickland & Barton
	1:30-4:30	Methods: Discussion, Seminar: Programmed Instruction	Baker
July 29 Friday	8:30-10:30	Practice Teaching	Barker
	10:30-12:00	TV-Operative	Strickland
	1:30-3:00	Pedodontic Movie	Baker
	3:00-5:00	Practice Teaching	Barker

Fourth Week: August 1-August 5

Date	Hour	Subject	Faculty
August 1 Monday	8:30-12:00	Practice Teaching	Barker
	1:30-4:30	Developing an Educational Philosophy	Baker
August 2 Tuesday	8:30-10:30	Practice Teaching	Barker
	10:30-12:00	Correspondence and Resident Program	Barton
	1:30-3:30	Practice Teaching	Barker
	3:30-4:30	Evaluation-Art and Science of Teaching	Barker
August 3 Wednesday	8:30-10:00	Pedodontic Assisting	Baker
	10:00-12:00	Written Comprehensive	Knudtzon
	1:30-4:30	Visit Alamance Technical Institute Dental Assisting Program	Lynch (Guest)
August 4 Thursday	8:30-10:00	Evaluation of Student Achievement	Barker
	10:00-12:00	Clinical Evaluation	Baker & Barker
	1:30-4:30	Clinical Comprehensive	Strickland, Knudtzon, Barton
August 5 Friday	8:30-9:30	ADAA-Philosophy Toward Education	Zedaker (Guest)
	9:30-10:30	How To Get Accredited	Miller (Guest) (Presented by Bawden)
	10:30-12:30	Oral Critiques and Panel Seminar	Baker, Barker Barton
	12:30-1:00	Summary Comments	Barton



Dormitory in which teacher participants
were housed with a portion
of new cafeteria in foreground

Facilities

In cooperation with the Extension Division of the University of North Carolina, arrangements were made to house the participants in a new dormitory, adjacent to a new cafeteria and located three blocks from the School of Dentistry. Free bus service was also provided between the dormitory and the Dental School.

Each participant was accorded the privileges of University students in that all University facilities were at their disposal such as the library, concerts, lectures, swimming pool, golf course, laundry, and the infirmary.

The School of Dentistry provided facilities for all phases of the program. This included the laboratories, lecture halls, clinical area, TV studio, and the Division library. All equipment and supplies normally associated with these areas were also available.

Grant funds provided the following books for the program:

"The Dental Assistant" by Brauer and Richardson

"Dental Assisting Manuals," set of seven prepared by faculty members of the School of Dentistry for the Dental Assistant Correspondence and Resident Program.

Notebook and supply of note paper.

Since grant funds provided for housing, supplies, registration fees and a meal allowance, the only major expense for the participants was transportation to and from the institute.

It might be mentioned at this point that the time factor provided between the actual notification of grant approval and the initiation of the program was extremely short. This time factor did not permit sufficient notice in some instances for proper scheduling of faculty participation, preparation of more extensive teaching aids, arranging of summer schedules of some dental assistant teachers wishing to attend a training program, and contact of desired persons to make guest appearances.

Dr. Wood demonstrating a laboratory procedure to dental assistant students while teacher participants observe

Dental Assistant Education and Training Program

On July 6, 1966, a class of 20 dental assistant students enrolled at the School of Dentistry to pursue a ten months training program. Having these classes in session during the Institute provided an observation experience, in the classroom, laboratory, and clinic for the Institute participants. The advantages of this arrangement are discussed in the appropriate sections of the report.

PROGRAM PRESENTATION

Comprehensive Examination

Chairside Assisting Techniques

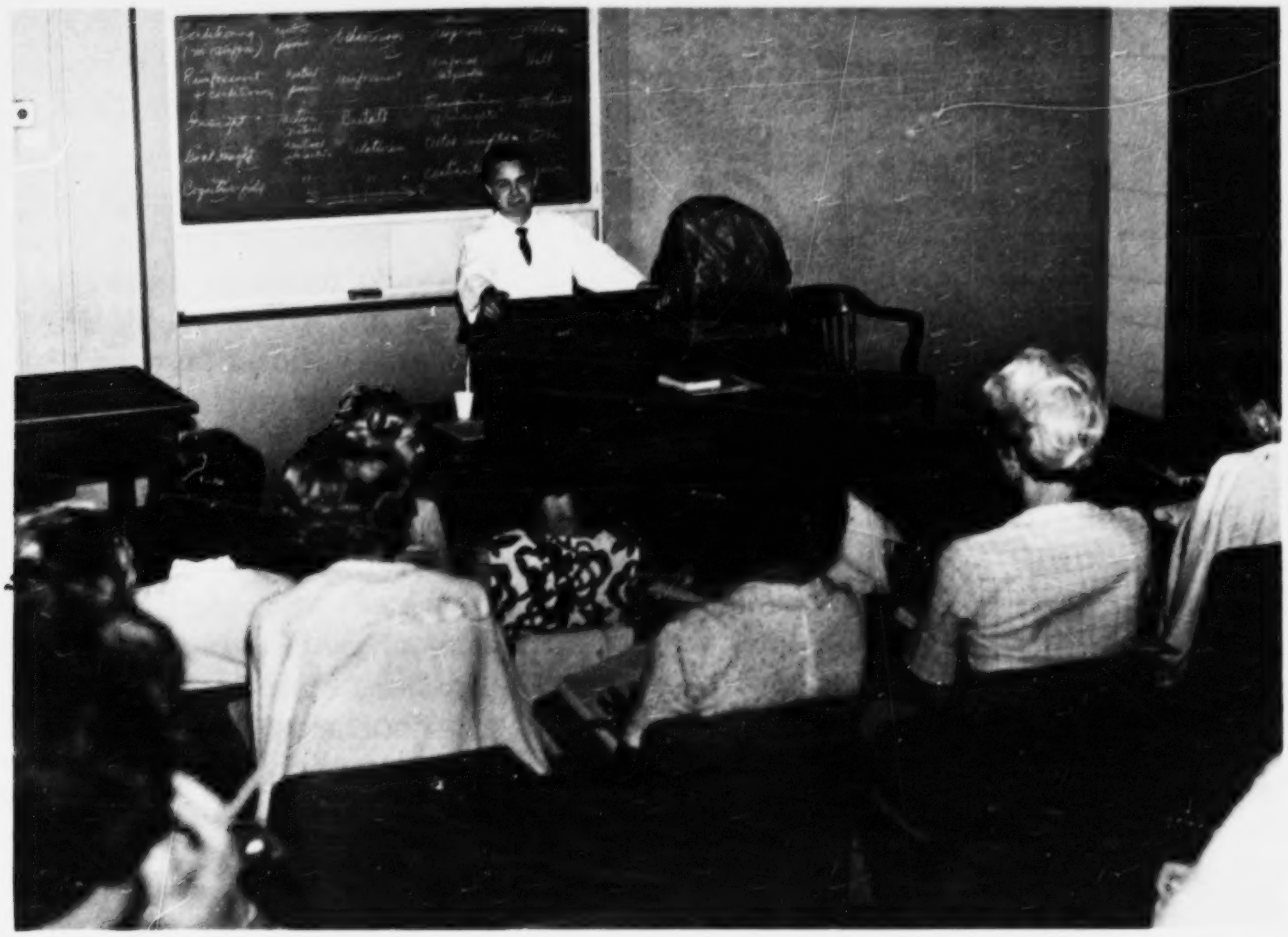
General Aptitude Test Battery

Art and Science of Teaching

Attitude and Opinion Survey

Miscellaneous Topics

Guest Presentations



PROGRAM PRESENTATION

The material in this report relating to the presentation of the curriculum will be divided into specific areas: 1) comprehensive examinations, 2) chairside assisting techniques, 3) general aptitude test battery, 4) the art and science of teaching, 5) attitude and opinion survey, and 6) guest presentations. Together with the course content and methods of presentation are allied comments relating to evaluation, conclusions, and faculty opinions relating to specific areas.

Comprehensive Examination

In the beginning phases of the institute it was desirable to establish a base line wherein the knowledge and skills of the institute participants could be evaluated. This was accomplished through a two part comprehensive examination which consisted of practical and written sections.

The UNC School of Dentistry offers a dental assistant education and training program in which the course content closely identifies with the knowledge and skills for dental assistants required by the Council on Dental Education of the American Dental Association. The program includes a comprehensive final examination to determine the level of knowledge and achievement of each student. The written portion of the examination consists of 200 questions of the multiple choice type. The practical phase of the examination contains 150 check point identifications and is related to clinical and laboratory functions of the dental assistant.

A representative examination for the institute participants was constructed from these comprehensive examinations. All questions in the clinical and laboratory phase of the examination which might be construed as regional were eliminated. The practical examination consisted of 10 subject areas with 143 check points and the written examination contained 200 multiple choice questions. Four faculty members administered the practical examination in a full day of the program. The written examination was given by one of the institute staff.

There is considerable variation of opinion on the part of individuals and schools of dental assisting relative to the depth of knowledge as well as types of skills in dental assisting as required by the Council on Dental Education. The examination was based upon the interpretation of the faculty of the UNC School of Dentistry. The tests were not given with the intent of grading individuals or placing them in competition with each other. Therefore, identities of the participants were concealed from the faculty through the selection of numbers by the participants. Each trainee retained the same number throughout the course and it was used on all tests, assignments, and surveys. The trainees selected a number between 51 and 73 and at no time were names of individuals and their numbers available together to the institute staff.

The results of the comprehensive examinations provided the staff with two valuable measuring tools. First, a level of knowledge and skills for the institute trainees as a group was established. Second, the test scores provided a means which allowed the institute staff to measure its success in teaching wherein scores of a second comprehensive examination administered in the last week of the institute could be compared with the first.

Practical Examination: The post-institute practical examination consisted of parts I, III, VI, VIII, and X of the first practical examination. The areas of testing included the following: I. Basic tray set up for examination and charting, III. Demonstration of evacuater tip positions for all quadrants of the mouth, VI. Preparation of a mix of silicate cement, VIII. Making a mix of zinc phosphate cement, and X. Punch a rubber dam to include the mandibular right first molar through the mandibular left canine using the first molar as the anchor tooth. These were the most frequently incorrect items from the first test. It was the feeling of the institute staff that items of the first test in which most of the students scored correct marks were not necessary for reexamination a second time. The parts of the first practical examination not included in the post-institute practical examination included the following items and their representative numbers on the examination: II. Seating a patient in a conventional or contour chair in a position suitable for sit-down dentistry, IV. Identification of instruments, V. Mount a full series of radiographs, VII. Prepare a syringe for a mandibular injection, and IX. Take, develop, and mount four bitewing radiographs.

The first complete practical examination resulted in grade scores ranging from a low of 50.3 to a high of 76.4 based upon a grading range of 0-100. The class average for the first examination was 63.72 which was lower than expected of teachers of dental assistant programs when comparing the results with past performances of dental assistant students taking the same type examination. The median score was 62.55.

Items I, III, VI, VIII, and X of the first test were reviewed for a separate test score since these items comprised the second test. Using a grade range of 0-100 for these five areas the score of the first test ranged from 28.5 to 67.5 with an average score of 43.8 and a median score of 43.5.

The second practical examination which was administered at the conclusion of the institute resulted in scores ranging from a low of 49.6 to a high of 98.6 with a class average of 81.47 and a median score of 86.0. This score represented a significant increased in knowledge and skills of the test items when compared to the average score of 43.8 which was achieved for the same items on the first test.

Two half days immediately after the examinations were devoted to a thorough review and demonstration of each problem on the practical portion of the examination. The class was divided into two sections each with one faculty member that reviewed five of the ten problems. This facet of the program not only permitted demonstration of all procedures

Dr. Strickland demonstrating clinical procedures

and techniques involved but it allowed for considerable small group discussion relating to the various skills identified with chairside assisting.

Written Examination: The first written comprehensive examination resulted in scores ranging from a low of 59.5 to a high of 89.5 based upon a grading range of 0-100. The average score of the first written examination was 80.54 and the median score was 82.0. The second written comprehensive which was administered at the end of the institute resulted in scores ranging from a low of 58.5 to a high of 91.0 based upon a scoring range of 0-100. The class average for the second test was 84.2 with a median score of 85.0. It should be noted here that the written examinations were not returned to the participants nor were they reviewed as such at any time during the Institute.

There was genuine concern among the institute trainees regarding their performance on the practical and written phases of the first test. Random comments from the group centered around a standard for the depth of knowledge of certain areas of dental assisting as required by the Council on Dental Education. All of the participants expressed a desire for more practice and instruction in the manipulative skills of chairside assisting. The advanced concept of total chairside assisting was considered by the trainees to be a weak aspect of their own programs and of their individual competencies. Test scores of the prototype workshop on Dental Assistant Teacher Training in 1965 and of the 1966 Institute indicated that the trainee concerns were valid.

The results of the second comprehensive examination which was given at the end of the institute proved to be revealing both to the trainees and to the institute staff. Both the practical segment and the written segment of the examination produced an increase in scores from the group, although the advance in the written segment was not significant. The practical examination test scores improved from a class median score of 43.5 to 86.0 and to a class average of 81.47 from 43.8 (for the same five exercises) while the written examination revealed an improved class median score from 82.0 to 85.0. The combined average grades of the first test series was 72.13. The combined average of the second test was 82.83.

Conclusions: From a comparison of test scores before the institute and at the conclusion of the institute it may be surmised that one of the objectives of the course was realized. That is, the level of knowledge and skills of the participants at the beginning of the course was increased in both the manipulative and general knowledge areas of dental assisting. These results, of course, may not be highly significant because of the concentrated effort on one subject area within a short period of time. However, it was particularly pleasing to the institute staff to see that an elevation of the advanced concept of dental assisting knowledge and skills was reflected from the participants through their test scores. It may, therefore, be concluded that from this standpoint this portion of the 1966 institute was significantly beneficial to the trainees.

Chairside Assisting

One of the basic objectives of the 1966 institute in Dental Assistant Teaching was to present new material in chairside dental assisting and to review concepts which are common to all in dentistry. The facilitation of this objective was realized through a large segment of the course which was devoted to a review of general dentistry and the related duties of the dental assistant in various appointment procedures.

Recommendations from the 1965 Prototype Workshop on Teacher Training in Dental Assistant Programs strongly indicated a need for review and refresher materials in the clinical application of advanced chairside assisting techniques. As a result of the recommendations of the 1965 workshop, the 1966 program fromat was altered to more closely follow the expressed needs of the participants. It was the general consensus of the previous program that clinical chairside participation in the workshop was of vital importance to the teaching personnel of the various dental assistant programs represented.

The results of the pre-program comprehensive practical application examination discussed under a previous topic in this report indicated to this faculty, at least, that the inclusion of chairside assisting techniques was warrented in this type program.

The clinical chairside assisting phase of the program included instruction in the following areas: office orientation and maintenance, team concepts in dentistry, oral diagnosis and treatment planning, anesthesia, operative dentistry, crown and bridge prosthodontics, endodontics, prosthodontics, pedodontics, oral surgery, periodontics, orthodontics, and instrument care and sterilization. The instructional phases of these areas were covered through lectures, slide films, demonstrations, moving pictures, and live television demonstrations. Lectures consisted of theory of practice in the several areas of dentistry. This was followed by recommendations for the role of the assistant in the many procedures in each given subject area. Subsequent to the lectures, the participants were scheduled for observation in the student clinic areas of the School of Dentistry. In these sessions the participants observed the dental assistant students at work. This was followed by individual assignments to a student assistant. The participant observed the student at work after which she submitted a grading evaluation of the trainee's performance. During the clinical observation, the dental assistant students were working at the chairside with junior or senior dental students in the main clinic. A variety of operations were being performed at this time including operative, crown and bridge, endodontics, periodontics, etc.

It was not the intent of this portion of the Institute to present a review of dentistry as such but to coordinate a review of common dental procedures and how the chairside assistant can be effectively utilized. Thus the teacher trainee would be given material that would be useful in preparing

Participants observing student dental assistant prior to clinical evaluation dental assistant trainees for chairside performance.

Throughout this portion of the program preparatory reading was suggested in "The Dental Assistant" and Manuals V and VII of the Dental Assistant Correspondence Program.

Due to the time allotment for each of the subject areas, the clinical observation segment was limited. However, the supportive lectures in the specialties of dentistry together with detailed instruction of the assistant's role in each phase of the dental procedures served well to refresh all the participants in the current practice of dentistry. The opportunity to observe the actual application of the materials from the lecture further strengthened and reinforced the participants' knowledge of clinical dentistry and the role of the dental assistant therein. The following is a resume of the more specific content of the specialty sections covered in lecture.

Office Orientation and Maintenance: Lecture material in the chairside assisting segment of the institute began with an introduction of the philosophy of office management which is most conducive to effective utilization of the assistant. This consisted of presentations through lecture and slide film illustrations. Patterns of operations, assistant's duties and office designs which provided maximum utilization with minimum time and motion were stressed. Effective work areas and equipment position, work positions, of the dentist and assistant and certain kinesiological considerations of operating positions were covered. The latter material dealt with body stresses and tensions created by poor operating positions of the dentist and assistant.

Team Concept: Basic to all proper dental chairside assisting is the concept of teamwork. The proper seating of the patient, responsibilities of a second assistant in the operatory, instrument exchange technique, and efficient use of the oral evacuator were discussed in lecture. Lectures were supported by sequential slide film series which illustrated chair positions, instrument exchange and use of the evacuator. A live television demonstration which demonstrated these concepts was also presented. It was emphasized throughout this lecture that teamwork in instrument exchange patterns, organization and practice are the basis of good chairside assisting.

Oral Diagnosis - Treatment Planning, Radiography and Anesthesia: The material covered in this section consisted of a review of the essentials of oral diagnosis, radiographic technique, treatment planning and anesthesia. This was accompanied by an emphasis of the assistant's role in each of these areas. Basic tray set up instrumentarium for diagnosis was illustrated. Records and charting of patient needs and operation of the various diagnostic equipment were discussed and demonstrated. Radiographic techniques for full mouth surveys were demonstrated and film development and darkroom maintenance were covered. The mechanics of local anesthesia and the role of the assistant in preparation for administration of the local anesthetic were also presented.

Operative Dentistry: A general coverage of the content of operative dentistry procedures was given in lecture form. Restorative procedures of amalgam alloys, gold inlays, gold foils, silicates and resin restorations were presented in lecture with slide films illustrative of sequential steps for each procedure. This was followed by a review of the role of the assistant in each procedure as it related to manipulation of materials and instrument exchange. A sequential series of slide films illustrated these assistant duties. A live television demonstration of an operative procedure was given which emphasized the role of the assistant. Tray set ups and instrumentarium were stressed for each procedure.

Clinical observation and discussion of prosthodontic procedures

Prosthodontics - Fixed and Removable: An introductory commentary of fixed prosthodontics was given in lecture with reading assignments for background knowledge. Various fixed prostheses were illustrated by slide films. This was accompanied by slide film illustrations of the assistant's responsibility in appointments for crown and bridge appliances. A typical procedure for a fixed bridge appointment series was used to illustrate the various types of appointments for completing a fixed prosthesis. The role of the assistant was emphasized in all appointments which involved tooth preparation, temporary coverage, jaw relationships and cementation appointments. The same type approach for removable prostheses was presented. Each individual step for the various appointments was

Closed circuit TV endodontic procedure in progress utilizing two chairside assistants

emphasized. The role of the assistant in the appointments was given priority as the main learning criteria. Tray set up armamentarium was reviewed for these procedures. The recommended duties of the assistant were supported by observation periods in the student clinics.

Endodontics: Basic information of the content of all endodontic procedures was presented in lecture form. Prior to the lecture a question and answer discussion session was conducted by the instructor to gain more participation from the class. A second objective of this technique was to see if there was unanimity of feeling among the class relative to endodontic procedures. Each step of a typical endodontic case was presented in lecture-slide film demonstration emphazing the assistant's duties and the sequence of the dental operation. Reinforcement of the information was gained through a live television demonstration in which two root canal fillings were placed and two assistants were utilized. Commentary from the class with the operator and the assistants was provided through the communication system between the lecture room and the television studio. After the demonstration the class resumed with an evaluation and question and answer period between the class and the operator and his assistants. This was the only TV demonstration in which two chairside assistants were utilized simultaneously.

Pedodontics: Pedodontic procedures were presented in lecture form which covered all of the various types of children's dentistry. This included operative dentistry, chrome steel crowns, partial dentures, topical fluoride application, pulpotomy and preventive orthodontic appliance adjustment. These were supported with sequential slide films and commentary of the procedures and the duties of the assistant. In addition, two programmed slide-tape film presentations were shown which illustrated techniques of appliance fabrication. These programmed presentations served two purposes. They introduced new material to the class and they demonstrated a proven teaching technique which is easily adaptable to dental assistant education. Instrument set ups, mobile cabinets, and instrument exchange patterns in pedodontics were presented as reinforcement approach to didactic material. A motion picture was shown demonstrating the effective use of auxiliaries in a pedodontic appointment.

The motion picture was divided into three parts. The first part depicted a dentist doing a simple restoration with no assistants in the room. The second part illustrated a similar operation with one assistant, and the third part utilized two assistants. Each operation was timed and the narration pointed out the effectiveness of the assistant or assistants.

Oral Surgery, Instrument Care, and Sterilization: Oral surgery procedures were presented in lecture form covering the types of procedures common to most general dental practices. Emphasis was placed upon the hazards of certain surgical procedures. A typical extraction case was demonstrated and the duties of the assistant in the procedure were illustrated. A general review of sterilization techniques was jointly presented with this section. The necessity for sterile technique in oral surgery operations provided the impetus for inclusion of this area in the oral surgery section. Methods of cleaning instruments, sterilizing instruments, and instrument care to insure the instrument sterility were presented. These areas were demonstrated in slide films and reinforced by live demonstrations in the appropriate areas of the School of Dentistry.

Tray set up armamentarium for routine extractions were reviewed. Didactic material relative to all oral surgery procedures was presented in class with discussion and clarification of the vocabulary or oral surgery essentials.

Periodontics: Classroom lecture materials for office procedures in periodontics covered the following areas: gross scaling, fine scaling, curettage, gingivectomy, gingivoplasty, osteoectomy, osteoplasty and occlusal adjustment procedures. Each of these areas was discussed relative to reasons for the procedure and the methods of clinical application. Slide film illustrations demonstrated instrumentarium for each procedure, order of use of instruments, and the instrument exchange patterns for each procedure. Question and answer periods followed the lecture. Further reinforcement of the techniques of assisting in periodontal appointments was provided by observation of dental students and student assistants in the periodontic clinic of the UNC School of Dentistry.

Orthodontics: Orthodontics is seldom practiced extensively in a general practice of dentistry. However, it was felt by the institute staff that instruction in this area of dentistry was important because of the extensive use of assistants in many orthodontic practices. Lectures consisted of an introduction of the types of orthodontic appointments generally conducted. These were records appointments, cephalometric radiographic technique, band fitting appointments, cementation appointments, completion appointments and retention. Armamentarium and assistant responsibilities were illustrated in the several procedures. A live television demonstration was presented in which two different types of orthodontic appointment procedures were accomplished. A trained orthodontic assistant was used in the demonstration. A running commentary between the television studio and the classroom served to clarify certain points by the participants.

Summary: The Institute participants were instructed in the common dental procedures of all the clinical disciplines in dentistry during the four week period of the program. Lecture material introduced and reviewed these areas and was accompanied by recommendations for the role of the dental assistant in the various subject areas. Instruction was supported by various types of learning resource materials which have been previously discussed. In general, the institute participants received a comprehensive review of dental procedures which was specifically oriented to present two broad areas. These were the content and sequence of the many procedures practiced by the dentist in a general practice and the role of the dental assistant in these various appointments. Emphasis was placed upon patterns of operation and the detailed assisting responsibilities of the chairside assistant.

General Aptitude Test Battery

This battery of tests, commonly designated the GATB, was administered primarily in order to familiarize the teacher-trainees with the battery in the event they desire to take advantage of these tests as a means of selecting prospective candidates for programs in Dental Assisting.

The specific aptitude test battery for the Dental Assistant (B-475) measures general learning ability, spatial aptitude, clerical perception and finger dexterity. This battery of tests, developed by the United States Employment Service (Department of Labor) is available without cost to the school or the applicant. Likewise, the test can be taken by the candidates in or near their home towns. Approximately 1900 Employment Service Offices are located in the 50 states and the District of Columbia.

Because the job requirements and job description for Dental Assistants are uniform in all 50 states, the significance of this battery being used as a baseline consideration for entrance into schools of Dental Assisting could have far reaching potential. Likewise, its further use by an employer-dentist would eliminate job applicants who might otherwise be employed for varying periods of time before their incompatibility as a dental assistant would be mutually discovered.

This test battery has been validated by two samples--one consisting of 53 persons, the other of 85 for a total of 138 students. The results indicate that if the workers had been tested and passed the established norm, 75 per cent would have been good workers. Likewise, only 25 per cent having passed the battery of tests with the prescribed norms would have been poor workers.

There are about 550 listed occupations (USES Department of Labor) in their catalogue of tests and test materials. This volume includes a job summary or course description and a guide to the use of the GATB tests for each occupation. Likewise, each occupation has its separate Specific Aptitude Test Battery with a distinct variation in the norms for each occupation.

For example, the fields of dental assisting, dental hygiene, dental laboratory technology and dentistry each have a different battery, although some aptitudes are common to the 4 occupations. However, the minimum score of, for instance, the same aptitude (G), namely General Learning Ability, would vary perhaps as much as 25 or 30 points in these four categories.

What aptitudes are measured by the GATB?

G- General Learning Ability: Ability to understand instructions and underlying principles; to reason and to make judgements - closely related to doing well in school. V - Verbal Aptitude: Ability to understand sentences and paragraphs, and present information or ideas clearly. N - Numerical: Ability to do arithmetic quickly and accurately. One test measures computational factors, another arithmetic and reasoning. S - Spatial Aptitude: Ability to "see" objects in space and understand their relationships. Ability to think visually of geometric forms in two or three dimensions. P - Perception: Ability to compare and distinguish shapes and details, to make visual comparisons, and to see slight differences in shapes and shadings of figures, widths and lengths of lines. Q - Clerical Aptitude: Ability to see detail in tasks like proofreading and to avoid perceptual errors in arithmetic. K - Motor Speed and Coordination: Ability to coordinate movements of the hands with what is observed and to make hand movements rapidly. F - Finger Dexterity: Ability to move fingers and manipulate small objects. M - Manual Dexterity: Ability to move hands and arms skillfully. Why test? Individuals differ in "trainability" or capacity for acquiring skills and these differences can be measured. Testing is more practical than trying out a large number of jobs.

What is the GATB? The General Aptitude Test Battery is a multifactor test requiring a little over two hours to administer. It measures nine aptitudes important in a large number of jobs. Leading psychologists have described it as the most adequately standardized and validated battery available for the counseling and placement of youth and adults.

How is the GATB used? Employment counselors often use it in vocational guidance. Placement interviewers consider aptitudes in selecting trainees. Many employers require pre-employment tests that are included in the GATB. No fee is charged for testing, counseling, or placement.

Besides aptitude, what should be considered in choosing an occupation? Interests, leisure time activities, work experience, personal characteristics, physical limitations, ability to finance training, willingness to move to other areas, occupational trends, school records, temperament--these are as important as test results.

Can tests prove student will fail in certain jobs? No. They give a statement of "probably chances" when large numbers of applicants are tested. For example, if 80 out of 100 persons who fail a test also fail on the job--while 90 out of 100 persons who pass are successful--the relationship between the test and job performance can readily be seen.

Can tests prove student will be successful? No. Much depends upon personality traits, determination, interests, health, training, hard work, and the opportunities that become available. No test can tell all of the things one might do well, or precisely what one should be.

The tests were conducted by Mr. B. R. Chamberlin, Jr., and Miss Mabel LaBarr, Occupational Analysts of the Employment Security Commission, Raleigh, North Carolina.

Before giving the tests, Mr. Chamberlin explained their intent and purpose as well as their validity as the basis for vocational guidance and an indication of aptitudinal potential.

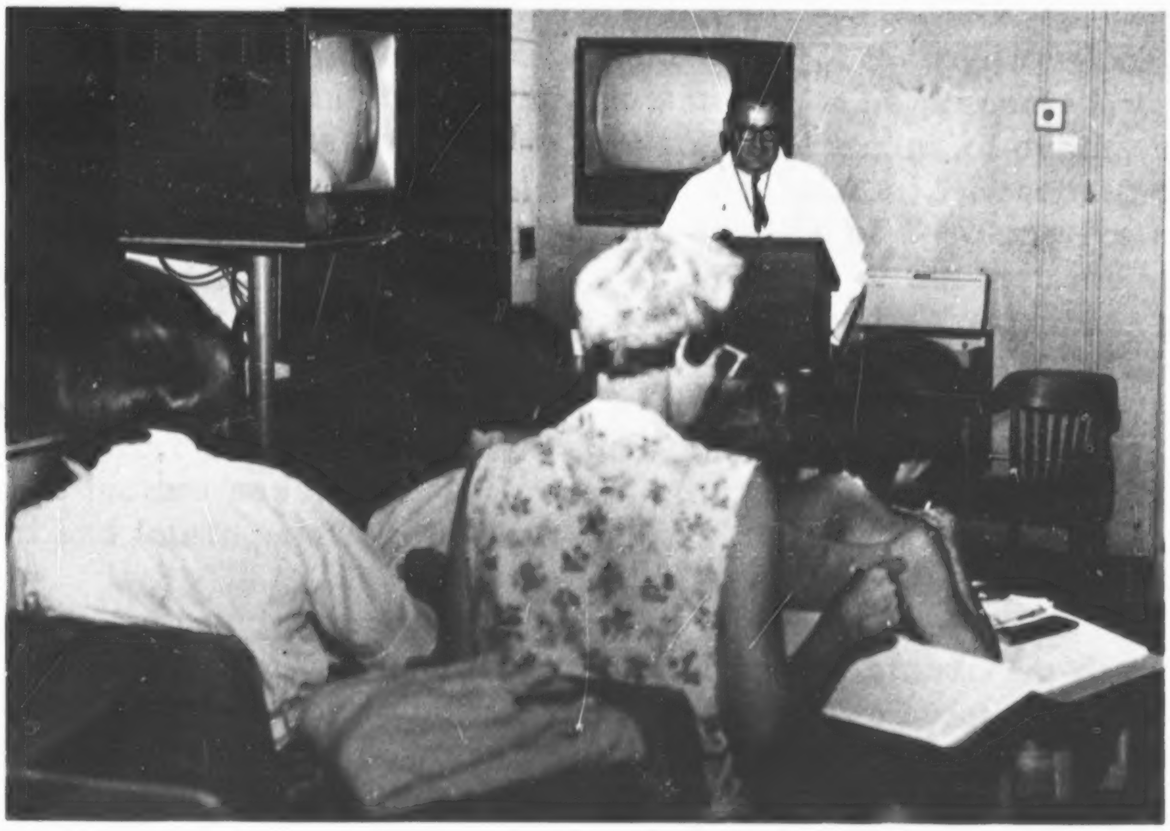
After this explanation, each participant took the actual tests for better understanding of the tests, and not for grading purposes per se. The group was put at ease through the use of numbers in lieu of names on the examination sheets. These numbers are known only to the participant. In addition, each person graded her own paper before handing it in. However, Mr. Chamberlin and Miss LaBarr rechecked all papers for any errors in scoring and found that nine trainees had qualifying scores, eleven made non-qualifying scores, and one failed to complete the test battery. The quality of the scores was probably influenced by the fact that the test was not given specifically for evaluation purposes.

The Art and Science of Teaching

The art and science of teaching portion of the Institute represented almost half the effort in the program. The subject areas were well diversified and represented the following material.

Developing Educational Objectives - Orientation, etc.
Educational Objectives - Instructional
Social, Psychological, Educational Principles in Teaching and Learning
Curriculum Design and Construction
Theories of Learning
Course Design and Construction
Course Evaluation (teacher oriented)
Course Evaluation
Methods: The Lecture
Methods: Nature and Use of Teaching Aids
Teaching Aids - Demonstration
Methods: Demonstration
Communications
Methods: Discussion, Seminar: Programmed Instruction
Practice Teaching
Evaluation of Student Achievement
Student Counseling
Selection of Students

Methods of Presentation: The various presentations were in the form of lectures, class participation discussions, movies, TV demonstrations, and practice teaching sessions. Because of the broad scope of the subjects listed above there were limitations on the type of presentation that could be employed. For this and other reasons the most commonly used approach was the lecture and class discussion methods. Early in the Institute each teacher trainee was asked to select a specific topic to prepare for presentation to the class in the practice teaching exercises. Informational resources of the School of Dentistry and Division of Health Affairs Library were available to these students for the preparation of these 10-15 minute presentations later in the course. The wide range of



Dr. Baker presenting a subject area of the art and science of teaching

topics selected by the teacher trainees is of some interest. They were as follows:

Presentation of a Treatment Plan
Personal Habits and Grooming of the Dental Assistant
Telephone Techniques
Care of the Dental Unit Handpieces
Dental Health Education of the Pedodontic Patient
Special Fields in Dentistry
Records: The Appointment Book
Role of the Dental Assistant in First Aid Procedures
Hazards of Radiation
The Pulmonary Circulation
Check Writing
Basic Oral Surgery
Investing the Wax Pattern
Public Relations - A Positive Mental Attitude
Seating the Paraplegic Patient
Anatomy - The Salivary Glands
Annotation of the Teeth
Credit and Collection
Developing an Office Handbook for Auxiliary Personnel
The Personal Interview
The Dental Assistant and Ethics

Each trainee was requested to prepare a list of instructional objectives for this presentation, an outline of the material to be presented, to select their method of presentation, and to prepare some means of evaluating the effectiveness of their presentation (student evaluation). Scheduling the practice teaching at the end of the Art and Science of Teaching Portion of the Institute was wise inasmuch as a major portion of the lectures which had application to the preparation for these lectures by the teacher trainees was able to be completed.

Every effort was made to encourage class participation and discussion during the lecture sessions. As in most classes this was not fruitful until the third and fourth week of the workshop.

Evaluation of Art and Science of Teaching: The faculty of the Institute in 1966 is unquestionably an improved faculty from the standpoint of understanding and competency to handle these problems, previous experience, and perhaps most important from the standpoint of recognizing the major needs of the dental assistant teacher trainee. However, evaluation procedures are so unsophisticated to date that we do not know whether we are accomplishing the Institute objectives in the light of how much real learning is actually achieved. The obvious reason for this is in any program of short duration there is inadequate time for the orientation of trainees, complete presentation of the materials thought to be necessary, comprehensive feedback, and valid measurement of the progress made on the part of the students and faculty.

No one part of the art and science of teaching portion of the presented material could be arbitrarily eliminated. An attempt to cover six or more major areas of educational theory and practice in the time permitted assumes a level of training on the part of participants that is beyond that which has been experienced so far. A decision must be made to limit the coverage in the curricula offerings in order to achieve an objective in one or two areas of major significance. (For example, the data of experience with dental educators has shown that minimal levels of understanding and ability to develop and write educational objectives can be accomplished in a one week faculty workshop. This program devoted approximately 5 hours to this subject with teacher trainees who had had less educational "exposure" than the majority of dental faculty who participate in these programs. When the trainees in the 1966 Institute had through lecture and discussion reached the point where they were perhaps ready to make trial and error efforts at developing objectives they were forced to move on to another subject. The failure to achieve competency in this one small area of the curriculum was demonstrated when these trainees were asked to prepare instructional objectives for their 10 to 15 minute classroom presentations. Only two of the participants submitted instructional objectives which were remotely in harmony with the principles outlined in the lecture - discussions).

A recurring problem is the heterogeneity of the teacher-trainees in the UNC Institute. This is considered a positive factor on their part for the exchange of information and views, but this presents an insurmountable problem to the faculty in selecting material and educational methodology in such Institutes. The preparation of lectures, for example, for a group which varies from no teaching experience to 14 years; some 20 years to approximately 60 years of age; from an educational background of high school and dental assistant training and no experience to those with formal education experience precludes the presentation of material in any but the most general terms.

One of the important criteria to keep in mind is the degree of permanence and continuing usefulness (or conversely, the degree of obsolescence) of the knowledge or skill to be presented. The following units of learning are listed in order of their decreasing obsolescence and increasing durability: 1. Vocational and job skills; 2. Knowledge of principle and theory; 3. Ability to solve problems and develop analytical tools; 4. Ability to keep on learning.*

The emphasis of these points is clear indeed. Specialized vocational skills are likely to be made obsolete by advances in science and technology. The subject matter of science will be more permanent, but it, too, will undergo correction and modification as well as the normal expansion. On the other hand, problem solving ability and the ability to continue one's

*Theodore Schultz

Dr. Crandell holding an informal discussion after lecture presentation education will be least subject to obsolescence and most likely to be useful throughout life.

The 1966 Institute as well as the previous one may have contributed to vocational and job skills and to knowledge of principles and theories in a superficial way. But it is doubtful that these programs have made any serious inroads into the deficiencies which relate to 3 and 4 above. The pre and post surveys of these teacher trainees would indicate that some change in attitudes and opinions did occur. Whether these were lasting changes or not remains to be seen, but the future of dental assisting and dental assistant teaching, and, ultimately, the impact on the dental health of this nation cannot rest on temporary changes in attitudes and opinions. That these teachers were awakened to certain problems in education, that they were made aware of certain deficiencies on their part, and that the desire to improve their teaching and learning was generated in the Institute is not in question. The central question would seem to be whether the Institute had any lasting impact on dental assisting and the profession of dentistry.

Evaluation of Attitudes and Opinion Survey

As a part of this portion of the Institute a preliminary decision was made to attempt to evaluate attitudes, knowledge, and skills of the participants in relation to the art and science of teaching. This was accomplished by administering a survey consisting of some 90 questions pertaining to the position of the dental assistant in the profession in an effort to ascertain how the dental assistant teachers saw themselves and their profession. For the majority of these questions they were asked to respond by circling a number on a continuous line ranging from 1 (strongly agree) to 5 (strongly disagree). The application of numerical values to these responses permits future comparison of the trainees response to the statements on the pre and post tests. The following general statements relate to the responses of the participants to this first questionnaire.

The Dental Assistants Self Concept: About two-thirds of the trainees believed that teaching in dental assistant program is important, the need is great, and they enjoy their work in the preparation of future dental assistants.

Dental hygienists are seen to rank on a par or slightly superior in their contribution to the total health of the nation and are thought to be slightly superior in intellect as well as receiving greater recognition from the dental profession.

Elevating the status of dental assistants is seen to be urgent; in-resident training in institutions designed for that purpose is seen to be the best method of achieving this end. All trainees apparently understand the urgent need for additional dental assistants in the profession's work force and see a strong national organization (dental assistants), higher salaries and improved certification measures as a means of attracting more and better qualified applicants to programs.

A comparison of the responses to statements regarding status, dental hygienists, professional recognition, training level, and others reveal what may be generally described as a deep seeded inferiority complex when these trainees compared themselves with dental hygienists.

Opinion on Licensure and Certification: Twelve respondents felt that licensing of dental assistants was necessary and desirable; three disagree with this point of view and the remainder have no opinion. Yet when asked about nationwide standards for dental assistants, the existing certification program was seen to provide this.

Opinion on Teacher Qualifications: Three-fourths of the group believe that in-residence training is a necessity for the dental assistant teacher; that dental assistant teachers should have training in the art and science of teaching; and that the program with which they are presently identified is meeting the needs of the profession. On the other hand, a comparable number of respondents indicated that there are some dental assistant training programs which are not meeting the needs of the profession. This opinion was linked to the competence of the teacher in "other" programs. In general, these trainees (60%) felt that they were well qualified to fulfill the requirements of their current programs, but that periodic refresher courses for dental assistant teachers to maintain and improve standards are necessary. All but two deemed training in the art and science of teaching as an essential to adequate teacher preparation. It is interesting to note that competence in the subject matter of dental assisting was not thought to be a quality of prime importance by 8 of the trainees.

Status of Dental Assisting Curriculums: The teacher trainees were evenly divided on the adequacy of the present skills and knowledge identified by the ADA Council on Dental Education for dental assistants. The bulk of the respondents, however, feel that the ADA list of approved skills is easily reached in the existing dental assisting training programs. Correspondence instruction was not thought to be more than a temporary measure to alleviate the current short supply of dental assistants. Sixty per cent of these trainees felt that they are well qualified to do the job they are currently doing in teaching dental assistants, about 20 per cent felt that they were doing a reasonably good job, and the remainder felt they are inadequate in their present positions. Two-thirds indicated that they experienced frustration in their teaching activities. There was unanimous agreement that dental schools must increase their training of dental students in the use of auxiliary personnel, particularly dental assistants. The training of superior dental assistants in the art and techniques of teaching is believed to be the best way to secure qualified dental assistant teachers.

Dr. Harrison demonstrating one of the many teaching aid devices shown participants

Keeping abreast with the changes in modern dental practice does not appear to be a major problem for these teachers.

Five respondents indicated that a curriculum for dental assistants should be carefully planned, but once adopted rarely changed. This is of particular significance when viewed in the light of the anticipated expansion of the role and duties of the dental assistant in the dental profession.

The screening of candidates for dental assistant training should be based upon standard form examinations which yield some measure of the student's mental and manual capabilities. A preference was shown for the personal interview in the selection of candidates and previous grades are not seen as the single best predictor of success in prospective dental assistant trainees.

An analysis of the major problems cited by these teacher trainees as expressed in their responses seem to be related to: grading of students and student evaluation, student selection, student motivation, and particularly motivation to problem solving (i.e. teaching students to think).

These teacher trainees apparently take their professional obligations seriously; recognize the need for more adequately trained dental assistants and dental assistant teachers; do not feel that their contribution to the profession is fully appreciated (particularly on the part of dentists); recognize the need for formal programs in dental assistant teacher training;

and are troubled by the relatively unsophisticated means by which trainees are selected, certified, maintain their skills, and their compensation.

Opinion on Salary and Compensation: All but one of the teacher trainees believe that dental assistants generally are underpaid. A comparable view is held regarding the salaries of dental assistant teachers with the exception of three of the respondents. However, only half of the group felt that the dental assistant should be paid on a comparable level to that of the hygienist. They were asked to suggest the beginning salary level which should be provided for teachers in dental assistant programs. The range in answers to this question was $5200 to $8000 per annum. The suggested mean annual salary was $6088, the median and mode, $6000.

Post Survey: As planned, a post survey of the teacher trainees was administered three days prior to the end of the workshop. Approximately 30 of the statements or questions in this post survey were identical to questions asked in the first questionnaire. These statements pertain to material that had been covered in the art and science of teaching portion of the Institute in an effort to determine where the attitudes regarding this aspect had been altered in any way. For example, in the first survey only 8 of the teacher trainees thought that being able to perform the requisite manual skills is a necessary quality of good dental assistant teachers. In the post survey, after some effort had been made to illustrate the advantages of demonstration in the teaching laboratory and chairside techniques, 15 of the respondents indicated that "being able to do" as well as "being able to tell how to do" was necessary on the part of the teacher.

Definitive statements cannot be made about changes in attitudes and opinions, but the last 10 questions on the post survey and the critiques written by all the participants are pertinent to the evaluation of the Institute. These are summarized below. Sixteen respondents felt that their attitude about teaching had changed as a result of the Institute while the remainder felt that no such change had occurred. None of the trainees felt that the art and science of teaching had received over-emphasis in the program. They would have preferred additional material on chairside assisting and laboratory experiences (participation exercises), more classroom participation, more information on tests and measurements, and additional material on teaching methods.

Trainee Critique Summary: The participants were asked to write a critique of the Institute pointing out their opinions in regard to the following areas of interest: the content of the Institute; whether their needs were met and why; suggestion for future Institutes; objectives to be assigned future Institutes; the desirable length from the point of view of time; desirable geographic sites; the composition of participants, etc. These critiques revealed:

(1) more emphasis on practice teaching was thought to be desirable;

(2) deletion of the following units of instruction would not seriously hamper the workshop: office management and orientation, philosophies of education, organization and administration of the Junior college program, and the Employment Security Examination;

(3) the participants were disappointed that the program had not tried to answer the question "how long does it take to train the dental assistant?"

(4) they would have preferred a considerable increase in the practice teaching time, division of the group into smaller sections, and, if possible, segregation of the participants according to educational and occupational background for some segments of the Institute;

(5) the dental school is seen as a desirable setting for teacher training Institutes because "if dental assistant programs are to be taught at high school and vocational schools - the instructors need exposure to polished professional examples and standards;"

(6) four weeks duration is deemed a desirable length of time for the Institutes;

(7) dormitory life is a plus, and genuine appreciation was expressed for the experience (increased knowledge of subject matter and newer concepts regarding teaching and learning were benefits from trainee discussions).

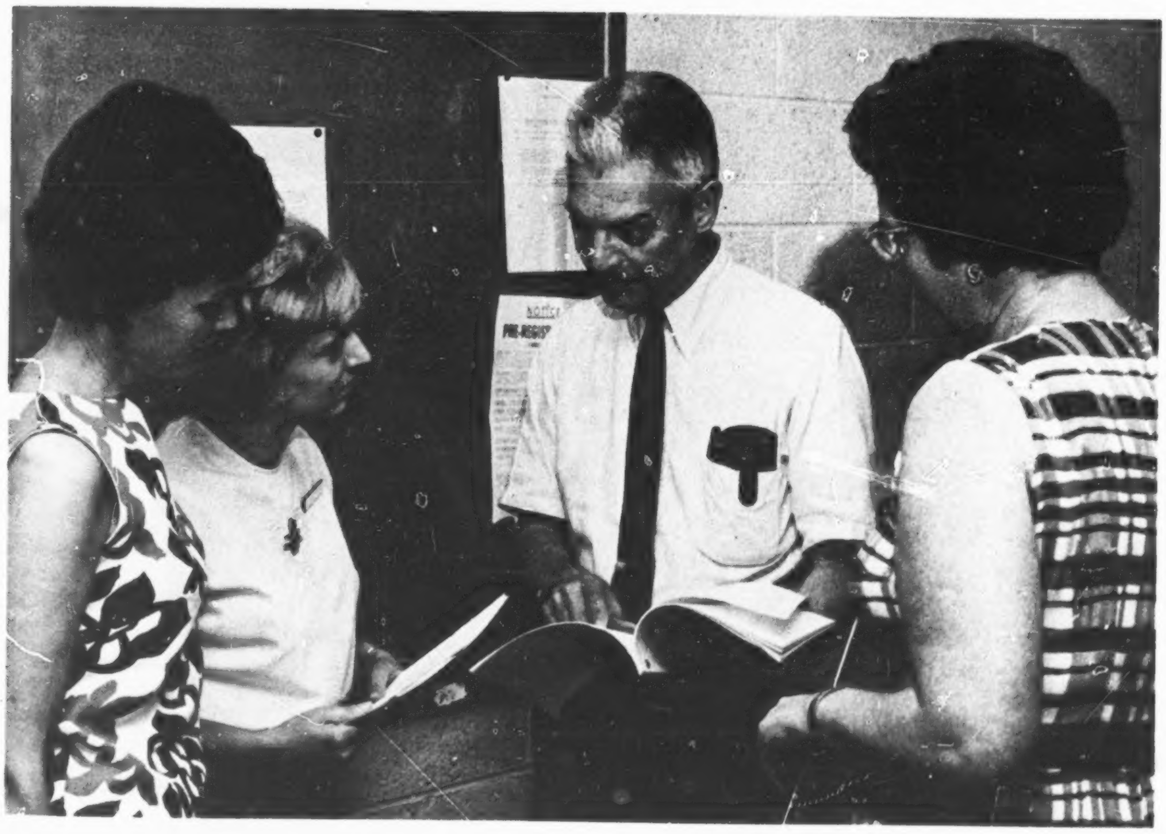
Two very interesting suggestions were often repeated in the critiques: (a) there exists a "desperate need for communication between Dental Auxiliary Utilization and Dental Assistant programs." The significance of this was demonstrated by the problems of communication experienced between representatives of these two programs in the teacher trainee group and, (b) it was suggested that a short workshop for dentists who are connected with dental assistant programs would be most beneficial to all concerned.

Miscellaneous Topics

Several subject areas were presented throughout the program that did not actually fall in either of the main categories. The Employment Security Commission Test was one such topic. This is discussed in detail in another section of the report.

Early in the curriculum a two hour lecture was presented detailing the Knowledge and Skills Identified with Approved Dental Assistant Courses. A checklist of areas of instruction as originally proposed by the Council on Dental Education of the American Dental Association was prepared with some revision and distributed to the Institute participants. In an effort to determine depth of coverage of each area, the following terms were substituted for the routine use of knowledge and ability: knowledge, understanding, familiarity, proficiency and ability. Some time was also devoted to determining how this check list could be used in developing course content for a dental assistant education and training program.

Another additional topic covered was administration of a Dental Assistant Education and Training Program. This topic was concerned with the



Dr. Knudtzon reviewing a specific point discussed in the practice management lecture

administrative responsibilities of the individual teachers as well as administrative personnel.

Dental Assistant Practice Management included such items as methods of presenting telephone techniques, examples of various types of letters used routinely in the dental practice, points of ethics that are essential for the dental assistant, and suggestions for routine administrative duties of the dental assistant in the office. In addition to the lecture, a considerable amount of "hand-out" material was made available to the participants.

Since there are many persons that are unable to attend a one year resident program but who desire to acquire a formal dental assistant education, the Dental Assistant Correspondence Program was discussed in detail. This was to provide the participants with information on the program so that they would be aware of correspondence procedures in case of inquiry. It also presented the opportunity to discuss how some of the work manuals prepared for the correspondence program could be incorporated as text material in existing resident programs.

These additional topics did not consume much of the curriculum time and the inclusion of this information was deemed appropriate for the participants of the Institute.

Dr. Hegemeyer, guest lecturer on Junior and Community Colleges

Guest Presentations

Dr. Richard H. Hagemeyer, President of Central Piedmont Community College of Charlotte, North Carolina was the first guest to appear before the Institute. Central Piedmont Community College now is conducting a program for training dental assistants and also a program for dental hygienists. Dr. Hagemeyer has not only the Community College Administration background, but also the experience of preparing dental auxiliary programs in the community college environment. His topic "Organization and Administration of Education Programs in Junior and Community Colleges" included multiple references to the dental auxiliary programs. Dr. Hagemeyer also discussed the organization pattern of community colleges and how this affected various programs and particularly the dental auxiliary teachers. His presentation was well received as confirmed by the interest expressed during a thirty minute discussion period.

Mr. Chamberlain and Miss LaBarr, both of the Security Commission of North Carolina, discussed and conducted the General Aptitude Test Battery. This is discussed in detail under the heading General Aptitude Test Battery in this report.

Mrs. Mildred Lynch, Instructor at Alamance Technical Institute, acted as host for a visit to the dental assisting program at that institution. Mrs. Lynch utilized some time at the School of Dentistry to discuss the program and facilities before the participants made the thirty mile trip to Burlington.

The facilities at this school are relatively new and are quite compact, utilizing available space to its greatest potential. Upon returning from this trip, the participants had many favorable comments on both the facilities and the program as conducted in the Technical Institute.

The participants as well as the staff appreciated the time and effort spent by Mrs. Lynch in making this additional experience available.

Miss Edna Zedaker, President of the American Dental Assistants Association presented a paper entitled "The American Dental Assistants Association Philosophy Toward Education." This paper included a brief history of the educational developments of the ADAA and a projection of programs for the future. The philosophy toward education was reemphasized along with the responsibilities of the dental assistant teachers in accredited programs of today and the future.

Miss Zedaker was able to relate plans for centralization of educational direction and information as recently projected by the American Dental Assistants Association. This information was greatly appreciated by the participants since they received an indication that a more complete standardization of programs could be a reality.

Sincere appreciation is expressed to Miss Zedaker for her appearance at the Institute. Her very busy schedule as President of the American Dental Assistants Association did not refrain her from preparing and presenting an excellent paper.

Due to the complications resulting from the airline strike, Mr. Ben Miller, III, representing the Council on Dental Education was unable to attend the final day of the Institute. His prepared material was presented by Dr. James W. Bawden, Dean of the School of Dentistry. This time also permitted Dr. Bawden to discuss the role of Dental Schools in dental auxiliary education and training.

Mr. Miller has kindly given permission to reproduce his paper in this report.

HOW TO GET ACCREDITED*

I should be able to handle my program assignment blindfolded and with earmuffs on. As many of you know, as a member of the staff of the Council on Dental Education going into his seventh year of employment with the American Dental Association, I have been privileged to visit many college and university campuses in connection with dental program site evaluations.

It has been a fascinating and rewarding experience to acquire this overview of dental and higher education - observing as we do the great diversities and the great strengths of the nation's educational systems and the impressive qualifications and competencies of its educational administrators and teachers. Dentistry is indeed fortunate to be a part of the nation's educational system and participating in the mainstream of higher and professional education in our colleges, universities and burgeoning new system of two-year colleges throughout the country. We feel privileged to join in a common effort within the educational community to raise our educational sights and standards to new goals of excellence now being formulated for general education, professional education, and technical education.

Before I come to the mechanics of accreditation, I want to emphasize that Council on Dental Education accrediting committees, from college to college, university to university, feel more like guests and friends of institutions which sponsor dental programs than like intruders from outer space who have come to the campus to meddle in matters which do not properly concern them. We feel like a part of the multitudes in education who are constantly striving to make our educational systems the most effective and strongest of possible systems. Certainly qualitative measurement and evaluation of both institutional and program strengths and weaknesses - in other words, accreditation - among our schools and colleges are objectives which can be universally embraced on either side of the accreditation confrontation. Reasonable agreements and understanding among men of good will are the only achievements that we can, or should, expect from the accrediting process - whether it is applied to institution or program evaluation.

I know I speak for members of the Council and the American Dental Association, which supports our accrediting program, in giving you this overview of our purposes and intentions in fulfilling responsibilities to the profession and to the public - especially the public of educators, such as you in this audience today represent.

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*Prepared by Mr. Ben F. Miller III, Assistant Secretary, Council on Dental Education, American Dental Association

Institutional Accreditation

Request for Basic Information: The Council cannot begin to discuss accreditation with administrators or officials until it has first determined the accreditation status of the parent institution itself. When we receive an inquiry from Alertsville Community College in Healthtown, U.S.A., suggesting that the College would like to initiate a new program in dental assisting, we must first know whether the institution is accredited, or considered accreditation-eligible, by a regional accrediting agency member of the National Commission on Accrediting. From long experience as a specialized accrediting agency among the health professions, the Council has learned that institutional evaluation is fundamental to program evaluation; the first process must precede and compliment the second. However, even if the Council did not hold this view, as a specialized accrediting agency for dental and dental auxiliary education recognized by the National Commission on Accrediting, and as an agency which complies with the Commission's criteria and regulations, we believe that institutional accreditation is the sine qua non of the specialized assignments we are expected to perform for the dental profession.

The Stages of Accreditation Processing

Council Response to Local Inquiries: Having assurances that Alertsville Community College is an accredited, or accreditation-eligible institution, the Council - and often other agencies and allied organizations of the profession - begins to provide local planning committees with basic reference material, so that planning at the community level can begin. Many of you perhaps are already acquainted with material made available at this stage of communication between school and the Central Office. At the moment, the Council's Policies and Guidelines for the Training of Dental Auxiliaries statement is mailed to our Healthtown correspondent, accompanied by a special information packet containing in general the following: educational standards, student enrollment and school listing data, curriculum guidelines and survey reports, aptitude testing program brochures and data and other relevant publications.

We like to think that the Policies and Guidelines publication, together with other special material mailed initially, is sufficient to enable all local parties assigned to program planning committees to come to a meeting of the minds on objectives, requirements, and policies of the profession relating to dental assisting education. To date, there is no reason to believe we have missed our target objective. However, I confess that we recognize the need for better and more complete financial information to guide new school planners in estimating capital expenditures for buildings and equipment and in appraising probable financial requirements for both capital and operating needs.

If Dr. Caries in Healthsville is not entirely satisfied that he has received enough information to get his planning committee under way, he usually has little hesitation in writing to us and explaining what his additional needs may be. However, when he and the planning committee are satisfied, the accreditation process usually moves then into its first formal stage.

Request for Formal Evaluation and Site Visit: Dr. Caries has been a good local planning committee chairman and has persuaded educators on his committee that accreditation is a first concern in planning a new dental assisting program. Also, Dr. Hall O. Ivy, Dean, Alertsville Community College has now carefully studied educational standards published by the Council and understands that accreditation cannot be set in motion until the parent institution formally requests evaluation and expresses a desire to plan an educational program which conforms with criteria approved by the dental profession. (You will notice that whatever language I use to explain the Council and profession's role in this stage of accreditation, there is just the very slightest taint of coercion implied.)

Among the 98 institutions which now offer dental assisting, or who shortly intend to offer this program, I am happy to say that none has been anything but fully cooperative - even anxious - to have a specialized agency review their initial venture into dental education - underground or grapevine comments, to the contrary.

After Dean Ivy informs us that his institution wishes to become accredited in dental assisting, he will then receive an accreditation survey form from the Central Office. Although no administrator or program director in his right mind is pleased to receive this form for any program offered by the institution - even the dental assisting program - the "lead-time" allowed for completion and return to the Council is usually one calendar year, since the decision to begin a new program is most often made well in advance of enrolling the first class of students.

Since dental assisting programs are still developing at an unprecedented rate (a 34 per cent enrollment increase and a 21 per cent increase in the number of graduates annually in the past year), Dean Ivy's program will in all probability be considered for "preliminary provisional approval" before it attains full accreditation status. In other words, before a site evaluation committee is sent to the campus of the Healthsville program, it will be reviewed preliminarily by the Council on the basis of information supplied by the College on accreditation forms. Most programs are able to supply sufficient information to the Council in writing for a decision to be reached on its conformance with Association educational policy.

Preliminary provisional approval decisions in dental assisting are made twice each year by the Council, during the May and December meetings. The rating of preliminary approval qualifies the program for inclusion in the examination program conducted by the Certifying Board of the ADAA and thus, all graduates of such programs are considered eligible for certification. Usually, within one year from the establishment of the preliminary approval classification, a site visiting team will be appointed to evaluate the new program on campus. This team consists either of a Council member and staff, or a Council field representative and a representative of the ADAA. The site evaluation of a new program, of course, sets the stage for the next phase of accreditation processing.

Preparation for the Site Visit: For some administrators, this part of accreditation is traumatic while for others it is a routine and - so help me - stimulating experience. For Dean Ivy, with capable assistance of his dental assisting teaching and supervisor, it is time for his administrative talents to shine and time, also, for him to demonstrate and prove his vast talent for diplomacy and interpersonal relations.

Preparing for the visiting committee evaluation requires that all departments serving the program - e.g., the arts and science departments, business and admissions offices, the College president and some members of the administrative staff, students, and usually, various service departments which make the school tick - be alert and ready to carry out their respective mission. It is no secret to say that accreditation visits are "staged" and that program administrators temporarily become "stage managers". This analogy need not have any sinister implications and I can assure you that it doesn't. On both sides of the accreditation fence, I assure you, that stage management is an important aspect of site visits. Conference schedules between the committee, department chairmen and faculties, administrators and service departments (e.g., audio-visual aids, library and others) must be prearranged. All instructional departments must be briefed on how to present each phase of the curriculum; samples of teaching aids used, tests and examinations administered and displays of student technic work should be studied and listed. All of you, I am sure, can use your imaginations effectively enough to envision an additional array of plans and details that should be projected and implemented.

At this stage of the processing, it is fair to say that the visiting committee's on-campus appearance is now an anticlimax. For at least one full day, the committee will carry out its assignments. It will visit with all administrators and faculty who have an interest in and make a contribution to the dental assisting program. The site visit is a pleasant, and reasonably orderly, procedure where the Council finds out something about you and your achievements and also, where you find out something about the Council and its evaluation methods. Everybody learns from this experience and profits by it as well. I assure you, though, that very often committees are more overwhelmed and bewildered during this stage of accreditation than are the educators. The committee has been assigned an awesome responsibility to see things straight and see them clear. It must report well and accurately and it must be considerate and fair. If you have ever been on an accrediting team, you know what I mean.

When the committee finally rushes out to the nearest airport, the local educators can breathe a sigh of relief and relax. Their job, for the time being, is completed but the committee's chores really begin. Please do not forget that report drafting and reviewing processes begin here for our traveling committeemen. Now the stage is set to consider reporting and processing the committee report.

Reporting Procedures and Policies: The heart of accreditation is really found in preparing the evaluation report. Skills of communication, skills of observation, skills of analysis and comparative qualitative judgement must be brought to bear with full force and effect. Since committees are composed of people - and people are only human - all the foibles known to group-think and group dynamics can be brought into play. Committees, however, manage very well in subjugating their own opinion and preferences to a larger view of the responsibilities which the Council carries for program evaluation. Consensus is reached before report writing begins in executive sessions and in the use of evaluator rating forms which help to crystalize each member's personal reactions and observations.

Usually, a staff member of the committee will prepare a working draft for circulation to the committee. This draft is edited until all agree that it reflects their views. The draft is then transmitted to the Council for a preliminary review on mail ballot. Following preliminary review by the Council, the report draft is then sent to Dean Ivy to edit for factual reporting accuracy. Finally, the report is revised and presented to the Council's Committee A for a careful review and discussion at a regular meeting. After Committee A's deliberations are completed, a recommendation on the accreditation status of the program is forwarded to the Council (usually the day following the Committee's meeting, but not necessarily).

The Council may accept the Committee's recommendation and direct that the report be forwarded to the chief administrator of the parent institution and the program director. However, the Council may, if it wishes, recommend further revision, additional site visits to obtain certain kinds of special information, or, it may recommend that no action be taken until a subsequent meeting. There are few occasions, however, where the Council does not accept the visiting committee's recommendations and transmit the report to the institution chief administrator and program director. At this point, the Council report becomes the property of the institution. Any or all of the information contained in it may be released to staff and faculty of the institution and to the public, if the officials so determine. The point is that accreditation information is never released by the Council on Dental

Education but may, on a discretionary basis, be released by the institution itself.

This is "How you become accredited". However, since I have presented only a bird's-eye view of the process, I am sure you will have some questions to ask. If so, I will do my best to answer them.

Note: Since Mr. Miller was unable to present this paper, the participants in the Institute were unable to indulge in specific questions relating to accreditation.

CONSIDERATIONS
and
RECOMMENDATIONS

CONSIDERATIONS AND RECOMMENDATIONS

The considerations and recommendations that follow represent the opinions of the Institute staff at the School of Dentistry, University of North Carolina and reflect the situations only as depicted as a result of the 1966 Institute at the University of North Carolina. These comments are the result of staff experiences during the Institute and contact with the participants, and they are, in no way, to be interpreted as unanimous representation of the Institute staff. Likewise, various situations at other Institutes of this nature would probably solicit comments of an entirely different nature.

Some of this material will be a repetition of comments made in the foregoing sections. However, they appear to be valid salient observations that should be included in this section.

All of the staff understood the necessity of this type program and the value it imparted. They, likewise, realize that a continuation of this type program in some form is required until a sufficient number of teachers become available that have had the opportunity to acquire baccalauete or master's degrees. Then, at this time, continuing education programs should be conducted.

The inadequate number of fully qualified dental assistant teachers is not a regional problem. The situation is national in scope and must be treated as such. Although the Institute was geared to the interpretations of the staff at the University of North Carolina, the trainee participants represented a wide geographic distribution. Therefore, it is anticipated that the comments and recommendations will be valid from a national point of view.

The considerations and recommendations are presented within the context of the comments stated in the above introductory remarks.

1. Survey: A survey of all dental assistant teachers should be made by an impartial agency (not one of the schools conducting an Institute) to determine two specific things (a) how many teachers are in a position to take advantage of future programs of a similar nature, and (b) exactly what would they desire in the curriculum from a standpoint of their existing needs.

With the two programs in 1966 and the one in 1965, approximately seventy persons were in attendance. There is a limited number of teachers in the field that would benefit from a repetition of the past programs. How many programs would be necessary to accommodate these teachers is not known.

The survey could also reveal that a large number of teachers would avail themselves of future programs providing there was a complete change of the curriculum to include what they deem most essential.

It is realized that this approach would not necessarily reach those potentially interested in teaching positions. However, if this group does not have a commitment to teach, the programs could be filled with those anticipating teaching but never entering the field.

With the survey consideration as a means of reevaluating the absolute needs, it may be well to postpone additional programs for one year until the results are known and time is available to prepare programs of the desired content.

2. Length of program: It has become evident that a four week program may be too long for the benefit desired by the trainee although few objected in their critiques. Many of those attending have families and being absent from home for an extended period creates a hardship on the individual which, in some instances, detracts from the effectiveness of the program. A series of two week programs concentrating on only one aspect may be more acceptable to the majority of teachers desiring to attend.

3. Location of programs: Future Institutes should continue to be held at a university, preferably in a dental school which has either a dental auxiliary utilization program or a dental assistant education and training program in progress at the time of the Institute.

If numerous programs are planned, a wide geographic distribution is an essential consideration to reduce extended travel requirements for those attending.

4. Number of trainees in program: The number of persons admitted to a program will be determined by the availability of facilities, faculty, and funds. Unless a large staff is available, twenty to twenty-five trainees appear to be a number that is entirely acceptable. A group much larger than this would lose much of the necessary personal contact with faculty. A group much smaller than the latter mentioned figures might not warrent the expense necessary for engaging the number of staff members necessary to provide the variety of backgrounds and experiences deemed necessary for complete coverage of a given program.

5. Curriculum: Experiences cited throughout this report indicate that in an overall evaluation, two deficiencies may exist among participants in these programs. These are (a) the general low level of knowledge in educational methodology and (b) the wide variance of manipulative skills in dental assisting. In view of these two district areas of concern, some consideration might be given to future programs in which concentration is limited to either teaching methodology or manipulative skills. As a further consideration, these two general areas might be further delineated into several topics each. This would permit a concentrated two week program allowing trainees more selectivity.

If the survey mentioned in item 1 is adopted, it is assumed these separate topics would then be meaningfully designated.

Where possible and feasible in the selected topic areas a considerable amount of time should be devoted to actual trainee application or practice. When this applies to the clinical and laboratory skills, this would require additional supplies and materials, plus the availability of patients and operators (dentists or advanced dental students). Actual participation under supervision would be more meaningful than lectures in many areas.

6. Scheduling: If it is deemed advisable to continue programs of four weeks duration, it would seem appropriate to have these scheduled at the same time at the several institutions. Then if different subject areas are covered, applicants could have a selection regardless of the time schedule involved. This potential was discussed in more detail in a previous section of the report.

Providing a two week program is adopted, each institution could concevably conduct several of these programs during a summer session, thus permitting attendance at one or more by interested teachers.

7. Workshops: The identification of the level of the knowledge and skills identified by the Council on Dental Education of the American Dental Association is not explicit. As a result, the various dental assistant education and training programs throughout the country do not have a recommended standard of achievement of the various subject areas. In view of this, a series of workshops might be projected at various institutions in which each institution develops one subject area in depth to be presented in a workshop. In this manner the course of study for all areas could be programmed and available as the recommended course for all schools. The sum of the workshops would thereby offer some standardization for course content in dental assistant training programs.

8. Program credit: The A D A A membership appears to appre-

ciate the efforts and vision of the assistants attending teacher training programs. Therefore, it would appear appropriate for that organization to officially recognize these individuals in a suitable manner.

9. Continuing Education: Although the formal dental assistant teacher training concept has not as yet been fully activated, it is not too early to begin formulating plans for continuing education programs. There may be a very acceptable tie-in between this type program and the Institutes thus far conducted.

It would appear appropriate for the ADAA to begin gathering data for an informational dental assistant teacher pool. This material could be compiled and serve as a directory for institutions seeking to employ dental assistant teachers.

10. Teacher Employment: The number of qualified persons available and interested in dental assisting teaching is too small to adequately fill the vacant positions. However, those schools anticipating accreditation or already accredited should establish some standard criteria or tests to be applied to all teaching candidates. Dental assisting experience alone does not appear to be sufficient grounds upon which to employ a teacher.

11. Program Preparation Time: At least six months should be available from the time the grant is approved until the actual program begins. Several reasons for this time availability have been cited throughout the report. Not the least important of these is sufficient notice of prospective trainees. It has been noted that many dental assistant teachers enroll in college courses during the summer, and these plans must be made well in advance. Another major reason is to permit sufficient time for proper organization and preparation of course material. It is doubtful whether any faculty at an institutions where this type program may be conducted would be able to devote full time concentration on preparation phases considering their present teaching schedules.

12. Future Support: The support permitted and the resources available through the United States Department of Health, Education, and Welfare - Office of Education should be continued for future programs if they are deemed advisable. The cooperation expressed through this department has been most satisfactory and sincerely appreciated by all those concerned.

SUMMARY

and

CONCLUSIONS

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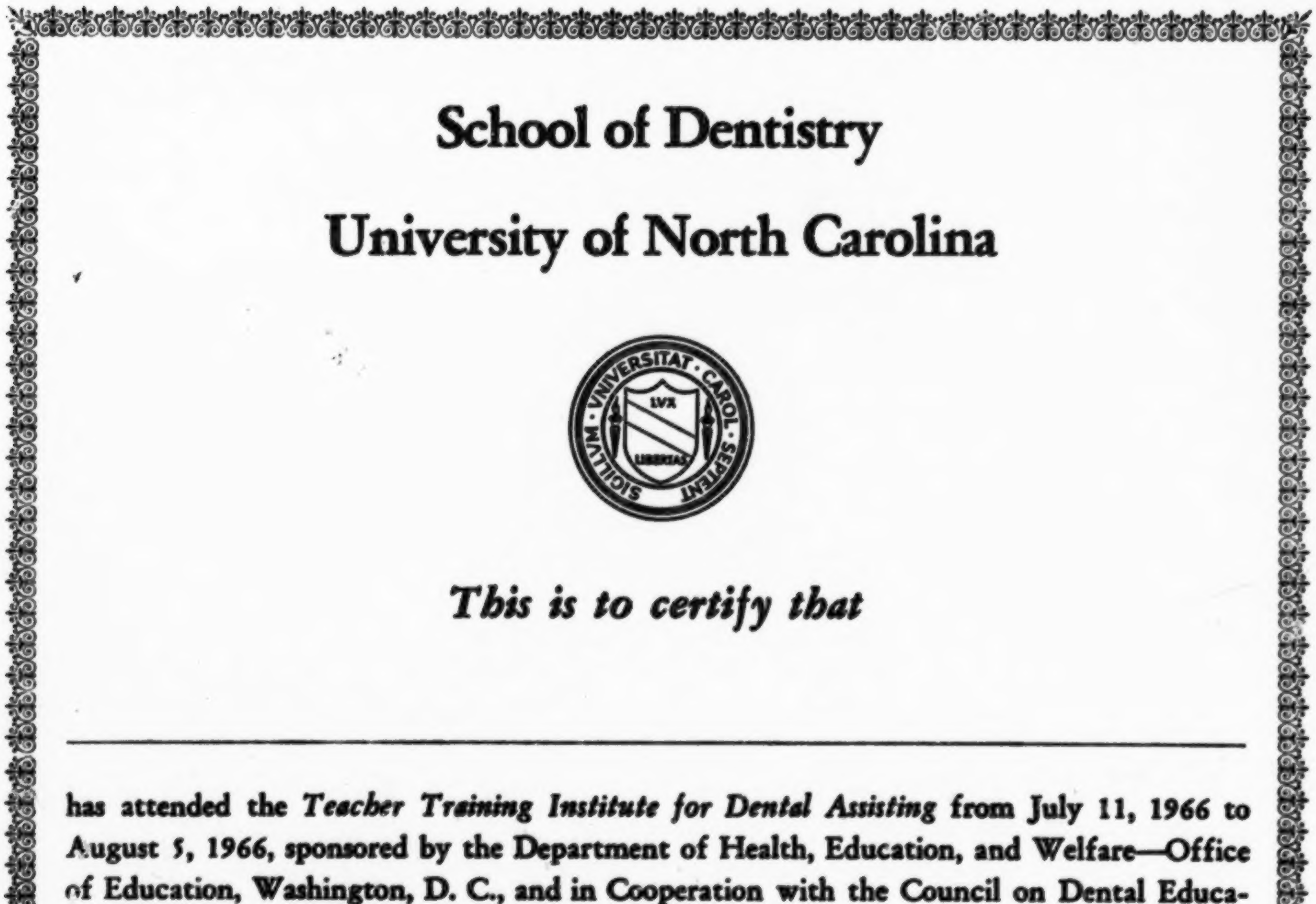
As indicated in the preceding material, there are some apparent benefits to the summer institute program, but there is a matter of some concern about the total contribution of the Institute to the problems facing the profession of dentistry today and the training of auxiliary personnel. It is doubtful that the workshop or summer institute programs can provide the meaningful experience that is necessary to elevate the standards of dental assistant teachers.

The value of these two summer programs exceeds that received by the participants. The faculty of the school of dentistry is now in a better position to make certain definitive statements about the qualifications of the current teacher in dental assistant programs across the nation. In general, they are deficient from the standpoint of cognitive skills, manual skills that pertain to chairside and laboratory procedures for the dental assistant, and woefully deficient in the understanding and application of the principles of sound educational theory and practice. This in no wise is to be construed as an indictment of these dedicated teachers. It merely reenforces the desperate need for formalized programs to develop teachers for dental assisting and other auxiliary programs.

The opportunities afforded institutions and agencies at this time in developing formal programs for dental assistant teachers is great indeed. With the acceleration in the development of these training programs in this state and across the nation it is conceivable that in a very short while curriculum, methodology, and teacher qualifications will become stereotyped as they have in many other areas of vocational training. Hence there is some urgency in developing standards, qualitative programs, and evaluative techniques of teacher education before the grip of tradition tends to solidify our present position.

It is the opinion of the staff that the University of North Carolina has gone about as far as it can and should go with summer institutes as presently constituted. There remains still the opportunity to concentrate an effort in a "refresher" type of course for the dental assistant teacher. There is and will continue to be an opportunity and responsibility for this type of continuing education.

It seems clear, however, at this time that the appropriate agencies of the Federal government, the American Dental Association, the American Dental Assistants Association, and educational institutions who are qualified to do so should devote their energies to the planning, development, and implementation of formal programs for teacher training of auxiliaries. It is believed that no single area of the dental profession will experience greater change in responsibility and effort in the succeeding years than that of the dental assistant. This fact alone is rationale for programs which will produce teachers with the ability to solve problems and develop analytical tools as well as the ability to keep on learning. We have to a large degree reaped the possible rewards from dental assistant training; what is needed now is dental assistant teacher education.



School of Dentistry

University of North Carolina

This is to certify that

has attended the *Teacher Training Institute for Dental Assisting* from July 11, 1966 to August 5, 1966, sponsored by the Department of Health, Education, and Welfare—Office of Education, Washington, D. C., and in Cooperation with the Council on Dental Education of the American Dental Association, the School of Dentistry and the University Extension Division of the University of North Carolina, and the Inter-Agency Joint Committee composed of the: American Association of Dental Schools; American Association of Junior Colleges; Division of Dental Health, United States Public Health Services; American Dental Assistants Association; and American Dental Hygienists' Association.

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